

Topic: [Statin Drugs](#)



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Related Toxic Ingredient - [Fenofibrates](#)

Additional Research

- [High Cholesterol](#)
- [Hypolipidemic](#)

What is Cumulative Knowledge, and Why Should it Interest Me?

Cumulative Knowledge is determined by ascribing a numerical value to all the articles indexed on our database. The [GreenMedInfo.com](#) algorithm appraises a study's overall evidentiary power and quality by generating a numerical value. This "Cumulative Knowledge" score incorporates variables such as study type, with the following types listed in descending order by their power: Meta-Analysis, Human Study, Human: Case Study, Animal:Transgenic, Animal, In Vitro, Review, and Commentary. The cumulative total will provide you an idea about the depth and quality of information that this topic has accumulated on our site. For instance, if you downloaded a document on "**Cancers: All**", you might see "**Curcumin**" with a **Cumulative Knowledge** of **677** and **Resveratrol** with a **Cumulative Knowledge** of **175**. This does not mean that **Curcumin** is better, but just that we have gathered more quality research on the Substance **Curcumin**.

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How are Topics and Articles Sorted in this PDF?

Articles in this document are placed within their respective **Topic** category. If you download a document on the Disease "**Cancers: All**" and are interested in all articles pertaining to the Substance "**Curcumin**" with regard to "**Cancers: All**", you will find them under the "**Curcumin**" sub-section underneath the **Cumulative Knowledge** section. **Topics** are sorted based on their **Cumulative Knowledge** in relation to the main topic of the download. In the previous example, it would be in relation to "**Cancers: All**". Articles are then sorted based on the articles **Published Date**. **Articles** are sorted in a descending fashion, which means that the most recent articles are displayed first. **Articles** may appear more than once in this document. For each **Topic** that an **Article** contains, it will be displayed in that sub-section. For example, if an **Article** contains the **Substances** "**Pterostilbene**" and "**Resveratrol**", the article will be displayed under each **Topic**.

Related Topics

This Topic includes articles from the following related Topics : [Atorvastatin](#), [Cerivastatin](#), [Fluvastatin](#), [Lovastatin](#), [Pravastatin](#), [Simvastatin](#)

Quick Summary: 90 Diseases

Name	Cumulative Knowledge	Article Count
Statin-Induced Pathologies	447	68
Myopathies	182	24
High Cholesterol	118	17
Hyperlipidemia	110	7
Drug-Induced Toxicity	107	17
Diabetes Mellitus: Type 2	100	6
Cardiovascular Diseases	94	11
Chemically-Induced Liver Damage	94	13
Copper Deficiency	90	6
Zinc Deficiency	90	6
Coenzyme Q10 Deficiency	70	7
Mitochondrial Myopathies	70	11
Drug-Induced Nutrient Depletion: Statin Drugs	66	16
Cataract	50	5
Esophageal Cancer	50	5

Kidney Failure	50	5
Coronary Artery Disease	41	5
AST: Elevated	40	2
Diabetes Insipidus	40	2
Diabetes Mellitus: Type 1	40	2
Elevated: ALT	40	2
Elevated: Creatinine Kinase	40	2
GGT	40	2
Liver Damage	40	4
Liver Disease	40	4
Liver Failure: Drug Induced	40	4
Myopathy	40	4
Rhabdomyolysis	33	4
Cardiomyopathy	31	4
Cancers: All	30	2
Hemodialysis	30	3
Mitochondrial Dysfunction	30	3
Cholesterol: Oxidation	24	4
Prenatal Chemical Exposures	21	3
Amyotrophic Lateral Sclerosis	20	2
Aortic Stenosis	20	1
Blood Sugar Problems	20	1
Cardiac mortality	20	2
Diabetes: Cardiovascular Illness	20	2
Erectile Dysfunction	20	2
Infants: Low Birth Weight	20	2
Insomnia	20	1
Interstitial Lung Diseases	20	1
Kidney Diseases	20	2
Premature Birth	20	2
Renal Failure: Chronic	20	2
Sepsis	20	2
Stroke	20	2
Testicular Cancer	20	2
Testosterone: Too Low	20	2
Oxidative Stress	18	5
Birth Defects	14	3
Autoimmune Diseases	10	1
Bacterial Infections and Mycoses	10	1
Bilirubin: Low	10	1
Breast Cancer	10	2
C-Reactive Protein	10	1
Chemotherapy-Induced Toxicity	10	1
Cholesterol: High	10	1
Dysphagia	10	1
Hypogonadism	10	1

Immune Disorders: Low Immune Function	10	1
Inflammation	10	1
Intracerebral Hemorrhage	10	1
Lupus-Like Syndrome	10	1
Melanoma	10	1
Multiple Myeloma	10	1
Myalgias	10	1
Myotoxicity	10	1
Neurodegenerative Diseases	10	1
Neuromuscular Diseases	10	1
Rheumatoid Arthritis	10	1
Skin Cancer	10	1
Stroke: Attenuation/Recovery	10	1
Systemic Lupus Erythematosus	10	1
Vitamin E Deficiency	10	1
Mineral Deficiencies: Selenium	5	5
Cholestasis	4	2
Cognitive Decline/Dysfunction	4	2
Endothelial Dysfunction	4	2
Hypertension	4	2
Organ Transplantation	4	2
Kidney Failure: Acute	3	1
Rhabdomyolysis: Fatal	3	1
Demyelinating Diseases	2	2
Hypoadrenalism	2	2
Infant Mortality	2	1
Neurologic Disorders	2	2
Neuropathies	2	1
Heart Failure	1	1

Category: Diseases

Topic: [Statin-Induced Pathologies](#)

[Statin drugs may interfere with neurological function in the brain by inhibiting cholesterol biosynthesis and synaptic transmission. - GMI Summary](#)

Pubmed Data : J Neurochem. 2011 Sep 7. Epub 2011 Sep 7. PMID: [21899539](#)

Article Published Date : Sep 07, 2011

Authors : Tiffany Mailman, Manoj Hariharan, Barbara Karten

Study Type : Review

Additional Links

Diseases : [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [Neurologic Disorders : CK\(42\) : AC\(18\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions :[Neurotoxic](#) : CK(689) : AC(87)

[Liver failure and damage are rare but severe unintended consequences of statin drug use.](#) - GMI Summary

Pubmed Data : J Hepatol. 2011 Aug 31. Epub 2011 Aug 31. PMID: [21889469](#)

Article Published Date : Aug 31, 2011

Authors : Einar Björnsson, Elin I Jacobsen, Evangelos Kalaitzakis

Study Type : Human Study

Additional Links

Diseases : [Chemically-Induced Liver Damage](#) : CK(386) : AC(145), [Liver Damage](#) : CK(496) : AC(172), [Liver Disease](#) : CK(95) : AC(29), [Liver Failure: Drug Induced](#) : CK(13) : AC(2), [Statin-Induced Pathologies](#) : CK(270) : AC(43)

Problem Substances : [Atorvastatin](#) : CK(150) : AC(19), [Fluvastatin](#) : CK(13) : AC(3), [Simvastatin](#) : CK(197) : AC(24), [Statin Drugs](#) : CK(1135) : AC(96)

Adverse Pharmacological Actions :[Hepatotoxic](#) : CK(95) : AC(34)

[Statin drug use is associated with a Lupus-Like syndrome.](#) - GMI Summary

Pubmed Data : Semin Arthritis Rheum. 2011 Aug 23. Epub 2011 Aug 23. PMID: [21868063](#)

Article Published Date : Aug 23, 2011

Authors :

Hilda J I de Jong, Jan Willem Cohen Tervaert, Siti R F Saldi, Rob J Vandebriel, Patrick C Souverein, Ronald H B Meyboom, Henk van Loveren, Olaf H Klungel

Study Type : Human Study

Additional Links

Diseases : [Lupus-Like Syndrome](#) : CK(10) : AC(1), [Statin-Induced Pathologies](#) : CK(270) : AC(43), [Systemic Lupus Erythematosus](#) : CK(322) : AC(51)

Problem Substances : [Statin Drugs](#) : CK(1135) : AC(96)

[Atorvastatin treatment reduces exercise capacities in rats and exacerbates metabolic perturbations and oxidative stress in skeletal muscle.](#) - GMI Summary

Pubmed Data : J Appl Physiol. 2011 Aug 18. Epub 2011 Aug 18. PMID: [21852406](#)

Article Published Date : Aug 18, 2011

Authors : Jamal Bouitbir, Anne-Laure Charles, Laurence Rasseneur, Stéphane P Dufour, Francois Piquard, Bernard Geny, Joffrey Zoll

Study Type : Animal Study

Additional Links

Diseases : [Oxidative Stress](#) : CK(1696) : AC(682), [Statin-Induced Pathologies](#) : CK(270) : AC(43)

Problem Substances : [Atorvastatin](#) : CK(150) : AC(19), [Statin Drugs](#) : CK(1135) : AC(96)

Adverse Pharmacological Actions :[Oxidant](#) : CK(63) : AC(23)

[Statin drug use is associated with lower bilirubin levels, a known risk factor for cardiovascular disease.](#) - GMI Summary

Pubmed Data : Atherosclerosis. 2011 Jul 23. Epub 2011 Jul 23. PMID: [21840000](#)

Article Published Date : Jul 23, 2011

Authors : Kwok Leung Ong, Ben J Wu, Bernard M Y Cheung, Philip J Barter, Kerry-Anne Rye

Study Type : Human Study

Additional Links

Diseases : [Bilirubin: Low : CK\(20\) : AC\(2\)](#), [Cardiovascular Diseases : CK\(3849\) : AC\(615\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Quercetin is able to ameliorate statin-drug induced skeletal muscle myopathy in an animal model.](#) - GMI Summary

Pubmed Data : Eur Heart J. 2011 Jul 20. Epub 2011 Jul 20. PMID: [21775390](#)

Article Published Date : Jul 20, 2011

Authors : Jamal Bouitbir, Anne-Laure Charles, Andoni Echaniz-Laguna, Michel Kindo, Frédéric Daussin, Johan Auwerx, François Piquard, Bernard Geny, Joffrey Zoll

Study Type : Animal Study

Additional Links

Substances : [Quercetin : CK\(265\) : AC\(134\)](#)

Diseases : [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Myotoxicity : CK\(44\) : AC\(11\)](#)

[Statin-induced myalgia occurs in~10% of lipid clinic outpatients.](#) - GMI Summary

Pubmed Data : Atherosclerosis. 2011 Jul 20. Epub 2011 Jul 20. PMID: [21868014](#)

Article Published Date : Jul 20, 2011

Authors : Gualberto Rúaño, Andreas Windemuth, Alan H B Wu, John P Kane, Mary J Malloy, Clive R Pullinger, Mohan Kocherla, Kali Bogaard, Bruce R Gordon, Theodore R Holford, Ankur Gupta, Richard L Seip, Paul D Thompson

Study Type : Human Study

Additional Links

Diseases : [Myalgias : CK\(25\) : AC\(3\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Myotoxicity : CK\(44\) : AC\(11\)](#)

[Statin drugs adversely effect memory likely through depletion of coenzyme q10 and interference with mitochondrial function in the brain.](#) - GMI Summary

Pubmed Data : Neurosci Lett. 2011 Jul 8. Epub 2011 Jul 8. PMID: [21763754](#)

Article Published Date : Jul 08, 2011

Authors : M Fux, J Levine, A Aviv, R H Belmaker

Study Type : Animal Study

Additional Links

Diseases : [Cognitive Decline/Dysfunction : CK\(350\) : AC\(71\)](#), [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Neurotoxic : CK\(689\) : AC\(87\)](#)

[Statin drugs increase the risk of diabetes.](#) - GMI Summary

Pubmed Data : Curr Opin Cardiol. 2011 Jul;26(4):342-7. PMID: [21499090](#)

Article Published Date : Jul 01, 2011

Authors : Uchechukwu K Sampson, Macrae F Linton, Sergio Fazio

Study Type : Meta Analysis

Additional Links

Diseases : [Diabetes Mellitus: Type 1 : CK\(933\) : AC\(212\)](#), [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Diabetogenic : CK\(89\) : AC\(9\)](#)

[In a pooled analysis of data from 5 statin trials, intensive-dose statin therapy was associated with an increased risk of new-onset diabetes compared with moderate-dose statin therapy.](#) -

GMI Summary

Pubmed Data : JAMA. 2011 Jun 22;305(24):2556-64. PMID: [21693744](#)

Article Published Date : Jun 22, 2011

Authors : David Preiss, Sreenivasa Rao Kondapally Seshasai, Paul Welsh, Sabina A Murphy, Jennifer E Ho, David D Waters, David A DeMicco, Philip Barter, Christopher P Cannon, Marc S Sabatine, Eugene Braunwald, John J P Kastelein, James A de Lemos, Michael A Blazing, Terje R Pedersen, Matti J Tikkanen, Naveed Sattar, Kausik K Ray

Study Type : Meta Analysis

Additional Links

Diseases : [Diabetes Mellitus: Type 2 : CK\(2400\) : AC\(309\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Diabetogenic : CK\(89\) : AC\(9\)](#)

[Risk documentation occurred in only 20% of women age 15-45 prescribed a medication known to contribute to birth defects.](#) - GMI Summary

Pubmed Data : J Am Board Fam Med. 2011 May-Jun;24(3):262-71. PMID: [21551398](#)

Article Published Date : May 01, 2011

Authors : Karie A Morrical-Kline, Alison M Walton, Tracey M Guildenbecher

Study Type : Human Study

Additional Links

Diseases : [Birth Defects : CK\(137\) : AC\(24\)](#), [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Angiotensin-Converting Enzyme \(ACE\) Inhibitor : CK\(50\) : AC\(5\)](#), [Angiotensin Receptor Blockers \(ARBs\) : CK\(10\) : AC\(1\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Teratogenic : CK\(266\) : AC\(48\)](#)

[Drugs targeting cholesterol synthesis are embryo lethal in mice and likely contribute to birth defects in humans.](#) - GMI Summary

Pubmed Data : Drug Metab Rev. 2011 Feb ;43(1):69-90. PMID: [21247357](#)

Article Published Date : Feb 01, 2011

Authors : Simon Horvat, Jim McWhir, Damjana Rozman

Study Type : Animal Study

Additional Links

Diseases : [Birth Defects : CK\(137\) : AC\(24\)](#), [Infant Mortality : CK\(194\) : AC\(17\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Teratogenic : CK\(266\) : AC\(48\)](#)

[Statin therapy contributes to low testosterone and hypogonadism in men with erectile dysfunction](#) - GMI Summary

Pubmed Data : J Sex Med. 2010 Apr;7(4 Pt 1):1547-56. Epub 2010 Feb 5. PMID: [20141585](#)

Article Published Date : Apr 01, 2010

Authors : Giovanni Corona, Valentina Boddi, Giancarlo Balercia, Giulia Rastrelli, Giulia De Vita, Alessandra Sforza, Gianni Forti, Edoardo Mannucci, Mario Maggi

Study Type : Human Study

Additional Links

Diseases : [Erectile Dysfunction : CK\(173\) : AC\(35\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hypogonadism : CK\(26\) : AC\(5\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#), [Testosterone: Too Low : CK\(277\) : AC\(65\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Endocrine Disruptor : CK\(283\) : AC\(56\)](#)

[Statins have been associated with immune-mediated necrotizing myopathy.](#) - GMI Summary

Pubmed Data : Muscle Nerve. 2010 Feb;41(2):185-90. PMID: [19813188](#)

Article Published Date : Feb 01, 2010

Authors : Phyllis Grable-Esposito, Hans D Katzberg, Steven A Greenberg, Jayashri Srinivasan, Jonathan Katz, Anthony A Amato

Study Type : Human Study

Additional Links

Diseases : [Autoimmune Diseases : CK\(3943\) : AC\(738\)](#), [Myopathy : CK\(50\) : AC\(6\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Unintended consequences of statin drug use are increased risk of esophageal cancer, kidney failure, cataract, liver dysfunction and myopathies.](#) - GMI Summary

Pubmed Data : BMJ. 2010;340:c2197. Epub 2010 May 20. PMID: [20488911](#)

Article Published Date : Jan 01, 2010

Authors : Julia Hippisley-Cox, Carol Coupland

Study Type : Human Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3849\) : AC\(615\)](#), [Cataract : CK\(160\) : AC\(53\)](#), [Chemically-Induced Liver Damage : CK\(386\) : AC\(145\)](#), [Esophageal Cancer : CK\(201\) : AC\(53\)](#), [Kidney Failure : CK\(228\) : AC\(42\)](#), [Myopathies : CK\(94\) : AC\(18\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Fluvastatin : CK\(13\) : AC\(3\)](#), [Pravastatin : CK\(31\) : AC\(4\)](#), [Rosuvastatin : CK\(28\) : AC\(6\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[An explanation of the mechanism of statin-induced contractile dysfunction in rat cultured skeletal myofibers.](#) - GMI Summary

Pubmed Data : J Pharmacol Sci. 2010;114(4):454-63. Epub 2010 Nov 26. PMID: [21127387](#)

Article Published Date : Jan 01, 2010

Authors : Syoko Tanaka, Kazuho Sakamoto, Masaya Yamamoto, Anna Mizuno, Tomoyuki Ono, Satoshi Waguri, Junko Kimura

Study Type : In Vitro Study

Additional Links

Diseases : [Myopathies : CK\(94\) : AC\(18\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Myotoxicity : CK\(44\) : AC\(11\)](#)

[Statin therapy decreases myocardial \(heart\) function.](#) - GMI Summary

Pubmed Data : Clin Cardiol. 2009 Dec;32(12):684-9. PMID: [20027659](#)

Article Published Date : Dec 01, 2009

Authors : Jack Rubinstein, Feras Aloka, George S Abela

Study Type : Human Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3849\) : AC\(615\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Statin drugs may cause myopathy by lowering vitamin E levels.](#) - GMI Summary

Pubmed Data : Med Hypotheses. 2009 Nov 5. Epub 2009 Nov 5. PMID: [19896775](#)

Article Published Date : Nov 05, 2009

Authors : Francesco Galli, Luigi Iuliano

Study Type : Review

Additional Links

Diseases : [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#), [Vitamin E Deficiency : CK\(25\) : AC\(4\)](#)

Additional Keywords : [Statin-Vitamin E Deficiency : CK\(10\) : AC\(1\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Statin drugs induce a variety of potential adverse "peliotropic" effects.](#) - GMI Summary

Pubmed Data : Curr Drug Saf. 2009 Sep;4(3):209-28. Epub 2009 Sep 1. PMID: [19534648](#)

Article Published Date : Sep 01, 2009

Authors : Jerzy Bełtowski, Grazyna Wójcicka, Anna Jamroz-Wiśniewska

Study Type : Review

Additional Links

Diseases : [Chemically-Induced Liver Damage : CK\(386\) : AC\(145\)](#), [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [Mineral Deficiencies: Selenium : CK\(15\) : AC\(6\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Additional Keywords : [Drug-Nutrient Depletion : CK\(64\) : AC\(10\)](#), [Statin-Selenium Deficiency : CK\(4\) : AC\(4\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Patients with statin-induced myopathy show high MHC class I expression due to the immunomodulatory activity of the drugs.](#) - GMI Summary

Pubmed Data : Ann N Y Acad Sci. 2009 Sep;1173:746-51. PMID: [19758224](#)

Article Published Date : Sep 01, 2009

Authors : Pratibha Singh, Danielle Kohr, Manfred Kaps, Franz Blaes

Study Type : Commentary

Additional Links

Diseases : [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Statin-induced liver injury may result from the suppression of selenoprotein expression.](#) - GMI Summary

Pubmed Data : Mol Pharmacol. 2009 Jun;75(6):1421-9. Epub 2009 Mar 30. PMID: [19332511](#)

Article Published Date : Jun 01, 2009

Authors : Andrea Kromer, Bernd Moosmann

Study Type : In Vitro Study

Additional Links

Diseases : [Chemically-Induced Liver Damage : CK\(386\) : AC\(145\)](#), [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [Mineral Deficiencies: Selenium : CK\(15\) : AC\(6\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Additional Keywords : [Statin-Selenium Deficiency : CK\(4\) : AC\(4\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Statin-induced muscle toxicity may be associated with altered oxidation of fatty acids. - GMI](#)

Summary

Pubmed Data : Endocrine. 2009 Feb;35(1):38-46. Epub 2008 Dec 3. PMID: [19051066](#)

Article Published Date : Feb 01, 2009

Authors : Paul S Phillips, Theodore P Ciaraldi, Dong-Lim Kim, M Anthony Verity, Tanya Wolfson, Robert R Henry,

Study Type : Human Study

Additional Links

Diseases : [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [Myopathies : CK\(94\) : AC\(18\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Myotoxicity : CK\(44\) : AC\(11\)](#)

[Statin drugs impair mitochondrial function and decrease ubiquinone \(coenzyme Q10\) levels. -](#)

GMI Summary

Pubmed Data : Toxicol Mech Methods. 2009 Jan;19(1):44-50. PMID: [19778232](#)

Article Published Date : Jan 01, 2009

Authors : Andrew J Duncan, Iain P Hargreaves, Maxwell S Damian, John M Land, Simon J R Heales

Study Type : Human Study

Additional Links

Diseases : [Mitochondrial Myopathies : CK\(33\) : AC\(5\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Simvastatin may inhibit adrenal function and/or responsiveness. - GMI Summary](#)

Pubmed Data : J Pharmacol Exp Ther. 2008 Oct;327(1):130-6. Epub 2008 Jul 1. PMID: [18593956](#)

Article Published Date : Oct 01, 2008

Authors : Taeko Matsuda, Yumiko Toyohira, Susumu Ueno, Masato Tsutsui, Nobuyuki Yanagihara

Study Type : In Vitro Study

Additional Links

Diseases : [Hypoadrenalism : CK\(38\) : AC\(6\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Simvastatin decreases coenzyme q10 levels in the left ventricle of the heart and skeletal muscle. - GMI Summary](#)

Pubmed Data : Physiol Res. 2007;56 Suppl 2:S49-54. Epub 2007 Sep 5. PMID: [17824807](#)

Article Published Date : Jan 01, 2007

Authors : J Kucharská, A Gvozdjáčková, F Simko

Study Type : Animal Study

Additional Links

Diseases : [Cardiovascular Diseases](#) : CK(3849) : AC(615), [Drug-Induced Nutrient Depletion: Statin Drugs](#) : CK(66) : AC(17), [Hypertension](#) : CK(1321) : AC(255), [Statin-Induced Pathologies](#) : CK(270) : AC(43)
Problem Substances : [Simvastatin](#) : CK(197) : AC(24), [Statin Drugs](#) : CK(1135) : AC(96)
Adverse Pharmacological Actions : [Cardiotoxic](#) : CK(467) : AC(53), [Myotoxicity](#) : CK(44) : AC(11)

[Lipophilic statin drugs are associated with impaired skeletal muscle mitochondria.](#) - GMI

Summary

Pubmed Data : Cell Mol Life Sci. 2006 Oct;63(19-20):2415-25. PMID: [17013560](#)

Article Published Date : Oct 01, 2006

Authors : P Kaufmann, M Török, A Zahno, K M Waldhauser, K Brecht, S Krähenbühl

Study Type : Animal Study

Additional Links

Diseases : [Mitochondrial Myopathies](#) : CK(33) : AC(5), [Statin-Induced Pathologies](#) : CK(270) : AC(43)

Problem Substances : [Atorvastatin](#) : CK(150) : AC(19), [Cerivastatin](#) : CK(2) : AC(1), [Fluvastatin](#) : CK(13) : AC(3), [Simvastatin](#) : CK(197) : AC(24), [Statin Drugs](#) : CK(1135) : AC(96)

[Statin drugs have been linked to myopathy, including rhabdomyolysis.](#) - GMI Summary

Pubmed Data : Arch Intern Med. 2005 Dec 12-26;165(22):2671-6. PMID: [16344427](#)

Article Published Date : Dec 12, 2005

Authors : Karen E Hansen, Julie P Hildebrand, Edwin E Ferguson, James H Stein

Study Type : Human Study

Additional Links

Diseases : [Myopathies](#) : CK(94) : AC(18), [Rhabdomyolysis](#) : CK(37) : AC(6), [Statin-Induced Pathologies](#) : CK(270) : AC(43)

Problem Substances : [Statin Drugs](#) : CK(1135) : AC(96)

Adverse Pharmacological Actions : [Myotoxicity](#) : CK(44) : AC(11)

[Statin-related myopathy is associated with low muscle levels of coenzyme Q10.](#) - GMI Summary

Pubmed Data : Arch Neurol. 2005 Nov;62(11):1709-12. PMID: [16286544](#)

Article Published Date : Nov 01, 2005

Authors : Costanza Lamperti, Ali B Naini, Valeria Lucchini, Alessandro Prella, Nereo Bresolin, Maurizio Moggio, Monica Sciacco, Petra Kaufmann, Salvatore DiMauro

Study Type : Human Study

Additional Links

Diseases : [Mitochondrial Myopathies](#) : CK(33) : AC(5), [Myopathy](#) : CK(50) : AC(6), [Statin-Induced Pathologies](#) : CK(270) : AC(43)

Problem Substances : [Statin Drugs](#) : CK(1135) : AC(96)

[Atorvastatin reduces serum coenzyme Q10 levels \(reduced and oxidized forms\) in patients with high cholesterol.](#) - GMI Summary

Pubmed Data : J Atheroscler Thromb. 2005;12(2):111-9. PMID: [15942122](#)

Article Published Date : Jan 01, 2005

Authors : Hiroshi Mabuchi, Toshinori Higashikata, Masaaki Kawashiri, Shoji Katsuda, Mihoko Mizuno, Atsushi Nohara, Akihiro Inazu, Junji Koizumi, Junji Kobayashi

Study Type : Human Study

Additional Links

Diseases : [Coenzyme Q10 Deficiency](#) : CK(42) : AC(5), [High Cholesterol](#) : CK(865) : AC(192), [Statin-Induced Pathologies](#) :

[CK\(270\) : AC\(43\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Statins and fenofibrates may exert their wide range of adverse side effects through interfering with selenoprotein expression. - GMI Summary](#)

Pubmed Data : Trends Cardiovasc Med. 2004 Oct;14(7):273-81. PMID: [15542379](#)

Article Published Date : Oct 01, 2004

Authors : Bernd Moosmann, Christian Behl

Study Type : Review

Additional Links

Diseases : [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Mineral Deficiencies: Selenium : CK\(15\) : AC\(6\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Additional Keywords : [Drug-Nutrient Depletion : CK\(64\) : AC\(10\)](#), [Statin-Selenium Deficiency : CK\(4\) : AC\(4\)](#)

Problem Substances : [Fenofibrates : CK\(66\) : AC\(11\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Grapefruit consumption may interfere with statin pharmacokinetics. - GMI Summary](#)

Pubmed Data : Br J Clin Pharmacol. 2004 Jul;58(1):56-60. PMID: [15206993](#)

Article Published Date : Jul 01, 2004

Authors : Jari J Lilja, Mikko Neuvonen, Pertti J Neuvonen

Study Type : Human Study

Additional Links

Substances : [Grapefruit : CK\(91\) : AC\(30\)](#)

Diseases : [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Pharmacological Actions : [Anticholesteremic Agents : CK\(180\) : AC\(38\)](#)

Problem Substances : [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Statin drugs \(HMG-CoA reductase inhibitors\) induce programmed cell death in human liver cells. - GMI Summary](#)

Pubmed Data : Biochem Pharmacol. 2004 Jun 15;67(12):2175-86. PMID: [15163549](#)

Article Published Date : Jun 15, 2004

Authors : Toshio Kubota, Koji Fujisaki, Yoshinori Itoh, Takahisa Yano, Toshiaki Sendo, Ryozo Oishi

Study Type : In Vitro Study

Additional Links

Diseases : [Chemically-Induced Liver Damage : CK\(386\) : AC\(145\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Atorvastatin decreases the coenzyme Q10 level in the blood of patients at risk for cardiovascular disease and stroke. - GMI Summary](#)

Pubmed Data : Arch Neurol. 2004 Jun;61(6):889-92. PMID: [15210526](#)

Article Published Date : Jun 01, 2004

Authors : Tatjana Rundek, Ali Naini, Ralph Sacco, Kristen Coates, Salvatore DiMauro

Study Type : Human Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3849\) : AC\(615\)](#), [Coenzyme Q10 Deficiency : CK\(42\) : AC\(5\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#), [Stroke : CK\(452\) : AC\(44\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#)

[Statin drugs may induce selenium deficiency which may explain many of its enigmatic side effects.](#) - GMI Summary

Pubmed Data : Lancet. 2004 Mar 13;363(9412):892-4. PMID: [15031036](#)

Article Published Date : Mar 13, 2004

Authors : Bernd Moosmann, Christian Behl

Study Type : Review

Additional Links

Diseases : [Coronary Artery Disease](#) : CK(942) : AC(133), [Drug-Induced Nutrient Depletion: Statin Drugs](#) : CK(66) : AC(17), [High Cholesterol](#) : CK(865) : AC(192), [Mineral Deficiencies: Selenium](#) : CK(15) : AC(6), [Statin-Induced Pathologies](#) : CK(270) : AC(43)

Additional Keywords : [Statin-Selenium Deficiency](#) : CK(4) : AC(4)

Problem Substances : [Statin Drugs](#) : CK(1135) : AC(96)

Adverse Pharmacological Actions : [Myotoxicity](#) : CK(44) : AC(11)

[Statins lower plasma and lymphocyte ubiquinol/ubiquinone \(coQ10\) levels.](#) - GMI Summary

Pubmed Data : Biofactors. 2003;18(1-4):113-24. PMID: [14695926](#)

Article Published Date : Jan 01, 2003

Authors : Siro Passi, Andrea Stancato, Enrico Aleo, Anna Dmitrieva, Gian Paolo Littarru

Study Type : Human Study

Additional Links

Diseases : [Coenzyme Q10 Deficiency](#) : CK(42) : AC(5), [Statin-Induced Pathologies](#) : CK(270) : AC(43)

Problem Substances : [Atorvastatin](#) : CK(150) : AC(19), [Pravastatin](#) : CK(31) : AC(4), [Simvastatin](#) : CK(197) : AC(24), [Statin Drugs](#) : CK(1135) : AC(96)

[The depletion of coq10 by statin drugs may be contributing to increasing rates of congestive heart failure.](#) - GMI Summary

Pubmed Data : Biofactors. 2003;18(1-4):101-11. PMID: [14695925](#)

Article Published Date : Jan 01, 2003

Authors : Peter H Langsjoen, Alena M Langsjoen

Study Type : Review

Additional Links

Diseases : [Drug-Induced Nutrient Depletion: Statin Drugs](#) : CK(66) : AC(17), [Heart Failure](#) : CK(452) : AC(85), [Statin-Induced Pathologies](#) : CK(270) : AC(43)

Additional Keywords : [Drug-Nutrient Depletion](#) : CK(64) : AC(10), [Statin-Coq10 Depletion](#) : CK(36) : AC(7)

Problem Substances : [Statin Drugs](#) : CK(1135) : AC(96)

Adverse Pharmacological Actions : [Cardiotoxic](#) : CK(467) : AC(53)

[Type 2 diabetic patients patients treated with statin drugs have decreased coq10 levels and may be associated with subclinical diabetic cardiomyopathy reversible by CoQ10 supplementation.](#) - GMI Summary

Pubmed Data : Arzneimittelforschung. 1999 Apr;49(4):324-9. PMID: [10337451](#)

Article Published Date : Apr 01, 1999

Authors : Y Miyake, A Shouzu, M Nishikawa, T Yonemoto, H Shimizu, S Omoto, T Hayakawa, M Inada

Study Type : Human Study

Additional Links

Diseases : [Cardiomyopathy](#) : CK(75) : AC(15), [Diabetes: Cardiovascular Illness](#) : CK(503) : AC(103), [Drug-Induced Nutrient](#)

[Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Additional Keywords : [Drug-Nutrient Depletion : CK\(64\) : AC\(10\)](#), [Statin-Coq10 Depletion : CK\(36\) : AC\(7\)](#)

Problem Substances : [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Cardiotoxic : CK\(467\) : AC\(53\)](#)

[Statin drug induced myopathy is amplified in the rats administered cyclosporine A. - GMI](#)

Summary

Pubmed Data : J Pharmacol Exp Ther. 1991 Jun;257(3):1225-35. PMID: [1904494](#)

Article Published Date : Jun 01, 1991

Authors : P F Smith, R S Eydelloth, S J Grossman, R J Stubbs, M S Schwartz, J I Germershausen, K P Vyas, P H Kari, J S MacDonald

Study Type : Animal Study

Additional Links

Diseases : [Cholestasis : CK\(95\) : AC\(21\)](#), [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [Myopathies : CK\(94\) : AC\(18\)](#), [Organ Transplantation : CK\(39\) : AC\(17\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Cyclosporins : CK\(2\) : AC\(1\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Lovastatin decreases coenzyme Q10 levels in rats. - GMI Summary](#)

Pubmed Data : Proc Natl Acad Sci U S A. 1990 Nov;87(22):8928-30. PMID: [2247467](#)

Article Published Date : Nov 01, 1990

Authors : R A Willis, K Folkers, J L Tucker, C Q Ye, L J Xia, H Tamagawa

Study Type : Animal Study

Additional Links

Diseases : [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Additional Keywords : [Statin-Coq10 Depletion : CK\(36\) : AC\(7\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#)

[Lovastatin decreases coenzyme Q levels associated with compromised cardiac function in humans. - GMI Summary](#)

Pubmed Data : Proc Natl Acad Sci U S A. 1990 Nov;87(22):8931-4. PMID: [2247468](#)

Article Published Date : Nov 01, 1990

Authors : K Folkers, P Langsjoen, R Willis, P Richardson, L J Xia, C Q Ye, H Tamagawa

Study Type : Human Study

Additional Links

Diseases : [Coronary Artery Disease : CK\(942\) : AC\(133\)](#), [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Cardiotoxic : CK\(467\) : AC\(53\)](#)

Topic: [Myopathies](#)

[Statin-induced myopathy occurs in between 10-15% of users. - GMI Summary](#)

Pubmed Data : Expert Opin Drug Saf. 2011 Feb 23. Epub 2011 Feb 23. PMID: [21342078](#)

Article Published Date : Feb 23, 2011

Authors : Thura T Abd, Terry A Jacobson

Study Type : Review

Additional Links

Diseases : [Myopathies : CK\(94\) : AC\(18\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Rosuvastatin : CK\(28\) : AC\(6\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Myotoxicity : CK\(44\) : AC\(11\)](#)

[Low dose simvastatin induces compositional, structural and dynamic changes in rat. - GMI](#)

Summary

Pubmed Data : Biosci Rep. 2010 Feb;30(1):41-50. Epub 2009 Oct 6. PMID: [19228123](#)

Article Published Date : Feb 01, 2010

Authors : Nihal Simsek Ozek, Yildirim Sara, Rustu Onur, Feride Severcan

Study Type : Animal Study

Additional Links

Diseases : [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [Myopathies : CK\(94\) : AC\(18\)](#)

Problem Substances : [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Myotoxicity : CK\(44\) : AC\(11\)](#)

[Unintended consequences of statin drug use are increased risk of esophageal cancer, kidney failure, cataract, liver dysfunction and myopathies. - GMI Summary](#)

Pubmed Data : BMJ. 2010;340:c2197. Epub 2010 May 20. PMID: [20488911](#)

Article Published Date : Jan 01, 2010

Authors : Julia Hippisley-Cox, Carol Coupland

Study Type : Human Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3849\) : AC\(615\)](#), [Cataract : CK\(160\) : AC\(53\)](#), [Chemically-Induced Liver Damage : CK\(386\) : AC\(145\)](#), [Esophageal Cancer : CK\(201\) : AC\(53\)](#), [Kidney Failure : CK\(228\) : AC\(42\)](#), [Myopathies : CK\(94\) : AC\(18\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Fluvastatin : CK\(13\) : AC\(3\)](#), [Pravastatin : CK\(31\) : AC\(4\)](#), [Rosuvastatin : CK\(28\) : AC\(6\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[An explanation of the mechanism of statin-induced contractile dysfunction in rat cultured skeletal myofibers. - GMI Summary](#)

Pubmed Data : J Pharmacol Sci. 2010;114(4):454-63. Epub 2010 Nov 26. PMID: [21127387](#)

Article Published Date : Jan 01, 2010

Authors : Syoko Tanaka, Kazuho Sakamoto, Masaya Yamamoto, Anna Mizuno, Tomoyuki Ono, Satoshi Waguri, Junko Kimura

Study Type : In Vitro Study

Additional Links

Diseases : [Myopathies : CK\(94\) : AC\(18\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Myotoxicity : CK\(44\) : AC\(11\)](#)

[Statin-induced muscle toxicity may be associated with altered oxidation of fatty acids. - GMI Summary](#)

Pubmed Data : Endocrine. 2009 Feb;35(1):38-46. Epub 2008 Dec 3. PMID: [19051066](#)

Article Published Date : Feb 01, 2009

Authors : Paul S Phillips, Theodore P Ciaraldi, Dong-Lim Kim, M Anthony Verity, Tanya Wolfson, Robert R Henry,

Study Type : Human Study

Additional Links

Diseases : [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [Myopathies : CK\(94\) : AC\(18\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Myotoxicity : CK\(44\) : AC\(11\)](#)

[Statin-induced Ca\(2+\) release from ryanodine-sensitive stores and mitochondria an may contribute to myotoxicity.](#) - GMI Summary

Pubmed Data : J Atheroscler Thromb. 2009;16(6):870-7. Epub 2009 Dec 22. PMID: [20032581](#)

Article Published Date : Jan 01, 2009

Authors : Takayuki Hattori, Kuniaki Saito, Masao Takemura, Hiroyasu Ito, Hirotohi Ohta, Hisayasu Wada, Yoshitatsu Sei, Mitsunobu Kawamura, Mitsuru Seishima

Study Type : In Vitro Study

Additional Links

Diseases : [Myopathies : CK\(94\) : AC\(18\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Myotoxicity : CK\(44\) : AC\(11\)](#)

[Muscle complaints occur in 10% or more of patients started on high-dose statins.](#) - GMI Summary

Pubmed Data : Curr Opin Lipidol. 2007 Aug;18(4):401-8. PMID: [17620856](#)

Article Published Date : Aug 01, 2007

Authors : Charles R Harper, Terry A Jacobson

Study Type : Meta Analysis

Additional Links

Diseases : [Myopathies : CK\(94\) : AC\(18\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Myotoxicity : CK\(44\) : AC\(11\)](#)

[Statin drugs have been linked to myopathy, including rhabdomyolysis.](#) - GMI Summary

Pubmed Data : Arch Intern Med. 2005 Dec 12-26;165(22):2671-6. PMID: [16344427](#)

Article Published Date : Dec 12, 2005

Authors : Karen E Hansen, Julie P Hildebrand, Edwin E Ferguson, James H Stein

Study Type : Human Study

Additional Links

Diseases : [Myopathies : CK\(94\) : AC\(18\)](#), [Rhabdomyolysis : CK\(37\) : AC\(6\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Myotoxicity : CK\(44\) : AC\(11\)](#)

[Statin drugs lead to changes in statin sterol metabolism and aggressive statin treatment may adversely effect mitochondrial volume.](#) - GMI Summary

Pubmed Data : Clin Pharmacol Ther. 2005 Jul;78(1):60-8. PMID: [16003294](#)

Article Published Date : Jul 01, 2005

Authors : Hannu Päivä, Karin M Thelen, Rudy Van Coster, Joél Smet, Boel De Paepe, Kari M Mattila, Juha Laakso, Terho

Lehtimäki, Klaus von Bergmann, Dieter Lütjohann, Reijo Laaksonen

Study Type : Human Study

Additional Links

Diseases : [Mitochondrial Dysfunction : CK\(95\) : AC\(35\)](#), [Mitochondrial Myopathies : CK\(33\) : AC\(5\)](#), [Myopathies : CK\(94\) : AC\(18\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Statin drugs reduce coq10 levels which may result in mitochondrial dysfunction and cellular damage.](#) - GMI Summary

Pubmed Data : J Clin Pharmacol. 1993 Mar;33(3):226-9. PMID: [8463436](#)

Article Published Date : Mar 01, 1993

Authors : G Ghirlanda, A Oradei, A Manto, S Lippa, L Uccioli, S Caputo, A V Greco, G P Littarru

Study Type : Human Study

Additional Links

Diseases : [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Myopathies : CK\(94\) : AC\(18\)](#)

Additional Keywords : [Drug-Nutrient Depletion : CK\(64\) : AC\(10\)](#), [Statin-Coq10 Depletion : CK\(36\) : AC\(7\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Pravastatin : CK\(31\) : AC\(4\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Cytotoxic : CK\(45\) : AC\(28\)](#)

[Statin drug induced myopathy is amplified in the rats administered cyclosporine A.](#) - GMI Summary

Pubmed Data : J Pharmacol Exp Ther. 1991 Jun;257(3):1225-35. PMID: [1904494](#)

Article Published Date : Jun 01, 1991

Authors : P F Smith, R S Eydeloth, S J Grossman, R J Stubbs, M S Schwartz, J I Germershausen, K P Vyas, P H Kari, J S MacDonald

Study Type : Animal Study

Additional Links

Diseases : [Cholestasis : CK\(95\) : AC\(21\)](#), [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [Myopathies : CK\(94\) : AC\(18\)](#), [Organ Transplantation : CK\(39\) : AC\(17\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Cyclosporins : CK\(2\) : AC\(1\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [High Cholesterol](#)

[Statin therapy contributes to low testosterone and hypogonadism in men with erectile dysfunction](#) - GMI Summary

Pubmed Data : J Sex Med. 2010 Apr;7(4 Pt 1):1547-56. Epub 2010 Feb 5. PMID: [20141585](#)

Article Published Date : Apr 01, 2010

Authors : Giovanni Corona, Valentina Boddi, Giancarlo Balercia, Giulia Rastrelli, Giulia De Vita, Alessandra Sforza, Gianni Forti, Edoardo Mannucci, Mario Maggi

Study Type : Human Study

Additional Links

Diseases : [Erectile Dysfunction : CK\(173\) : AC\(35\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hypogonadism : CK\(26\) : AC\(5\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#), [Testosterone: Too Low : CK\(277\) : AC\(65\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Endocrine Disruptor : CK\(283\) : AC\(56\)](#)

[Atorvastatin increases myocardial indices of oxidative stress in a porcine model of hypercholesterolemia and chronic ischemia.](#) - GMI Summary

Pubmed Data : J Card Surg. 2008 Jul-Aug;23(4):312-20. PMID: [18598320](#)

Article Published Date : Jul 01, 2008

Authors : Neel R Sodha, Munir Boodhwani, Basel Ramlawi, Richard T Clements, Shigetoshi Mieno, Jun Feng, Shu-Hua Xu, Cesario Bianchi, Frank W Sellke

Study Type : Animal Study

Additional Links

Diseases : [Endothelial Dysfunction](#) : CK(654) : AC(167), [High Cholesterol](#) : CK(865) : AC(192), [Oxidative Stress](#) : CK(1696) : AC(682)

Problem Substances : [Atorvastatin](#) : CK(150) : AC(19), [Statin Drugs](#) : CK(1135) : AC(96)

Adverse Pharmacological Actions : [Oxidant](#) : CK(63) : AC(23)

[Statin drugs have been demonstrated to increase the rate of breast cancer, hemorrhagic stroke and mortality from noncardiovascular causes including cancer and infections.](#) - GMI Summary

Pubmed Data : Kardiologija. 2007;47(11):75-85. PMID: [18260968](#)

Article Published Date : Jan 01, 2007

Authors : D V Preobrazhenskiĭ, B A Sidorenko, S A Pataraiia, I D Vyshinskaia, O V Borisenko

Study Type : Review

Additional Links

Diseases : [High Cholesterol](#) : CK(865) : AC(192)

Problem Substances : [Pravastatin](#) : CK(31) : AC(4), [Statin Drugs](#) : CK(1135) : AC(96)

[Atorvastatin reduces serum coenzyme Q10 levels \(reduced and oxidized forms\) in patients with high cholesterol.](#) - GMI Summary

Pubmed Data : J Atheroscler Thromb. 2005;12(2):111-9. PMID: [15942122](#)

Article Published Date : Jan 01, 2005

Authors : Hiroshi Mabuchi, Toshinori Higashikata, Masaaki Kawashiri, Shoji Katsuda, Mihoko Mizuno, Atsushi Nohara, Akihiro Inazu, Junji Koizumi, Junji Kobayashi

Study Type : Human Study

Additional Links

Diseases : [Coenzyme Q10 Deficiency](#) : CK(42) : AC(5), [High Cholesterol](#) : CK(865) : AC(192), [Statin-Induced Pathologies](#) : CK(270) : AC(43)

Problem Substances : [Atorvastatin](#) : CK(150) : AC(19), [Statin Drugs](#) : CK(1135) : AC(96)

[Statins and fenofibrates may exert their wide range of adverse side effects through interfering with selenoprotein expression.](#) - GMI Summary

Pubmed Data : Trends Cardiovasc Med. 2004 Oct;14(7):273-81. PMID: [15542379](#)

Article Published Date : Oct 01, 2004

Authors : Bernd Moosmann, Christian Behl

Study Type : Review

Additional Links

Diseases : [Drug-Induced Nutrient Depletion](#): [Statin Drugs](#) : CK(66) : AC(17), [High Cholesterol](#) : CK(865) : AC(192), [Mineral Deficiencies](#): [Selenium](#) : CK(15) : AC(6), [Statin-Induced Pathologies](#) : CK(270) : AC(43)

Additional Keywords : [Drug-Nutrient Depletion](#) : CK(64) : AC(10), [Statin-Selenium Deficiency](#) : CK(4) : AC(4)

Problem Substances : [Fenofibrates](#) : CK(66) : AC(11), [Statin Drugs](#) : CK(1135) : AC(96)

[Statin drugs may induce selenium deficiency which may explain many of its enigmatic side effects.](#) - GMI Summary

Pubmed Data : Lancet. 2004 Mar 13;363(9412):892-4. PMID: [15031036](#)

Article Published Date : Mar 13, 2004

Authors : Bernd Moosmann, Christian Behl

Study Type : Review

Additional Links

Diseases : [Coronary Artery Disease : CK\(942\) : AC\(133\)](#), [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Mineral Deficiencies: Selenium : CK\(15\) : AC\(6\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Additional Keywords : [Statin-Selenium Deficiency : CK\(4\) : AC\(4\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Myotoxicity : CK\(44\) : AC\(11\)](#)

[Lovastatin enhances the susceptibility of LDL cholesterol to oxidation.](#) - GMI Summary

Pubmed Data : FEBS Lett. 1997 Jun 30;410(2-3):254-8. PMID: [9237640](#)

Article Published Date : Jun 30, 1997

Authors : A Palomäki, K Malminiemi, T Metsä-Ketelä

Study Type : Human Study

Additional Links

Diseases : [Cholesterol: Oxidation : CK\(329\) : AC\(96\)](#), [Coronary Artery Disease : CK\(942\) : AC\(133\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Cardiotoxic : CK\(467\) : AC\(53\)](#), [Oxidant : CK\(63\) : AC\(23\)](#)

[Statin drugs reduce coq10 levels which may result in mitochondrial dysfunction and cellular damage.](#) - GMI Summary

Pubmed Data : J Clin Pharmacol. 1993 Mar;33(3):226-9. PMID: [8463436](#)

Article Published Date : Mar 01, 1993

Authors : G Ghirlanda, A Oradei, A Manto, S Lippa, L Uccioli, S Caputo, A V Greco, G P Littarru

Study Type : Human Study

Additional Links

Diseases : [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Myopathies : CK\(94\) : AC\(18\)](#)

Additional Keywords : [Drug-Nutrient Depletion : CK\(64\) : AC\(10\)](#), [Statin-Coq10 Depletion : CK\(36\) : AC\(7\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Pravastatin : CK\(31\) : AC\(4\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Cytotoxic : CK\(45\) : AC\(28\)](#)

[Lovastatin decreases coenzyme Q levels associated with compromised cardiac function in humans.](#) - GMI Summary

Pubmed Data : Proc Natl Acad Sci U S A. 1990 Nov;87(22):8931-4. PMID: [2247468](#)

Article Published Date : Nov 01, 1990

Authors : K Folkers, P Langsjoen, R Willis, P Richardson, L J Xia, C Q Ye, H Tamagawa

Study Type : Human Study

Additional Links

Diseases : [Coronary Artery Disease : CK\(942\) : AC\(133\)](#), [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#),

[High Cholesterol : CK\(865\) : AC\(192\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)
Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)
Adverse Pharmacological Actions : [Cardiotoxic : CK\(467\) : AC\(53\)](#)

Topic: [Hyperlipidemia](#)

[Statin use is associated with an increased incidence of interstitial lung disease.](#) - GMI Summary

Pubmed Data : Chest. 2008 Oct;134(4):824-30. Epub 2008 Aug 8. PMID: [18689579](#)

Article Published Date : Oct 01, 2008

Authors : Antonio B Fernández, Richard H Karas, Alawi A Alsheikh-Ali, Paul D Thompson

Study Type : Meta Analysis

Additional Links

Diseases : [Hyperlipidemia : CK\(864\) : AC\(105\)](#), [Interstitial Lung Diseases : CK\(56\) : AC\(11\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Statin therapy is associated with decreased serum levels of zinc and copper.](#) - GMI Summary

Pubmed Data : J Trace Elem Med Biol. 2005;19(1):61-7. PMID: [16240674](#)

Article Published Date : Jan 01, 2005

Authors : Majid Ghayour-Mobarhan, David J Lamb, Andrew Taylor, Nandita Vaidya, Callum Livingstone, Timothy Wang, Gordon A A Ferns

Study Type : Human Study

Additional Links

Diseases : [Copper Deficiency : CK\(44\) : AC\(5\)](#), [Hyperlipidemia : CK\(864\) : AC\(105\)](#), [Zinc Deficiency : CK\(53\) : AC\(5\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Statin therapy is associated with decreased serum levels of zinc and copper.](#) - GMI Summary

Pubmed Data : J Trace Elem Med Biol. 2005;19(1):61-7. PMID: [16240674](#)

Article Published Date : Jan 01, 2005

Authors : Majid Ghayour-Mobarhan, David J Lamb, Andrew Taylor, Nandita Vaidya, Callum Livingstone, Timothy Wang, Gordon A A Ferns

Study Type : Meta Analysis

Additional Links

Diseases : [Copper Deficiency : CK\(44\) : AC\(5\)](#), [Hyperlipidemia : CK\(864\) : AC\(105\)](#), [Zinc Deficiency : CK\(53\) : AC\(5\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Drug-Induced Toxicity](#)

[Statin drugs may interfere with neurological function in the brain by inhibiting cholesterol biosynthesis and synaptic transmission.](#) - GMI Summary

Pubmed Data : J Neurochem. 2011 Sep 7. Epub 2011 Sep 7. PMID: [21899539](#)

Article Published Date : Sep 07, 2011

Authors : Tiffany Mailman, Manoj Hariharan, Barbara Karten

Study Type : Review

Additional Links

Diseases : [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [Neurologic Disorders : CK\(42\) : AC\(18\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Neurotoxic : CK\(689\) : AC\(87\)](#)

[Quercetin is able to ameliorate statin-drug induced skeletal muscle myopathy in an animal model.](#) - GMI Summary

Pubmed Data : Eur Heart J. 2011 Jul 20. Epub 2011 Jul 20. PMID: [21775390](#)

Article Published Date : Jul 20, 2011

Authors : Jamal Bouitbir, Anne-Laure Charles, Andoni Echaniz-Laguna, Michel Kindo, Frédéric Daussin, Johan Auwerx, François Piquard, Bernard Geny, Joffrey Zoll

Study Type : Animal Study

Additional Links

Substances : [Quercetin : CK\(265\) : AC\(134\)](#)

Diseases : [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Myotoxicity : CK\(44\) : AC\(11\)](#)

[Statin drugs increase the risk of diabetes.](#) - GMI Summary

Pubmed Data : Curr Opin Cardiol. 2011 Jul;26(4):342-7. PMID: [21499090](#)

Article Published Date : Jul 01, 2011

Authors : Uchechukwu K Sampson, Macrae F Linton, Sergio Fazio

Study Type : Meta Analysis

Additional Links

Diseases : [Diabetes Mellitus: Type 1 : CK\(933\) : AC\(212\)](#), [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Diabetogenic : CK\(89\) : AC\(9\)](#)

[Risk documentation occurred in only 20% of women age 15-45 prescribed a medication known to contribute to birth defects.](#) - GMI Summary

Pubmed Data : J Am Board Fam Med. 2011 May-Jun;24(3):262-71. PMID: [21551398](#)

Article Published Date : May 01, 2011

Authors : Karie A Morrical-Kline, Alison M Walton, Tracey M Guildenbecher

Study Type : Human Study

Additional Links

Diseases : [Birth Defects : CK\(137\) : AC\(24\)](#), [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Angiotensin-Converting Enzyme \(ACE\) Inhibitor : CK\(50\) : AC\(5\)](#), [Angiotensin Receptor Blockers \(ARBs\) : CK\(10\) : AC\(1\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Teratogenic : CK\(266\) : AC\(48\)](#)

[Concomitant administration of simvastatin and danazol has been associated with fatal rhabdomyolysis.](#) - GMI Summary

Pubmed Data : Clin Ther. 2010 May;32(5):909-14. PMID: [20685498](#)

Article Published Date : May 01, 2010

Authors : Ivan Stankovic, Alja Vlahovic-Stipac, Biljana Putnikovic, Zorica Cvetkovic, Aleksandar N Neskovic

Study Type : Human: Case Report

Additional Links

Diseases : [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [Rhabdomyolysis : CK\(37\) : AC\(6\)](#), [Rhabdomyolysis: Fatal : CK\(3\) : AC\(1\)](#)

Problem Substances : [Danazol : CK\(4\) : AC\(2\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#)

[Low dose simvastatin induces compositional, structural and dynamic changes in rat. - GMI](#)

Summary

Pubmed Data : Biosci Rep. 2010 Feb;30(1):41-50. Epub 2009 Oct 6. PMID: [19228123](#)

Article Published Date : Feb 01, 2010

Authors : Nihal Simsek Ozek, Yildirim Sara, Rustu Onur, Feride Severcan

Study Type : Animal Study

Additional Links

Diseases : [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [Myopathies : CK\(94\) : AC\(18\)](#)

Problem Substances : [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Myotoxicity : CK\(44\) : AC\(11\)](#)

[Statin-induced muscle toxicity may be associated with altered oxidation of fatty acids. - GMI](#)

Summary

Pubmed Data : Endocrine. 2009 Feb;35(1):38-46. Epub 2008 Dec 3. PMID: [19051066](#)

Article Published Date : Feb 01, 2009

Authors : Paul S Phillips, Theodore P Ciaraldi, Dong-Lim Kim, M Anthony Verity, Tanya Wolfson, Robert R Henry,

Study Type : Human Study

Additional Links

Diseases : [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [Myopathies : CK\(94\) : AC\(18\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Myotoxicity : CK\(44\) : AC\(11\)](#)

[Statin drugs reduce coq10 levels which may result in mitochondrial dysfunction and cellular damage. - GMI Summary](#)

Pubmed Data : J Clin Pharmacol. 1993 Mar;33(3):226-9. PMID: [8463436](#)

Article Published Date : Mar 01, 1993

Authors : G Ghirlanda, A Oradei, A Manto, S Lippa, L Uccioli, S Caputo, A V Greco, G P Littarru

Study Type : Human Study

Additional Links

Diseases : [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Myopathies : CK\(94\) : AC\(18\)](#)

Additional Keywords : [Drug-Nutrient Depletion : CK\(64\) : AC\(10\)](#), [Statin-Coq10 Depletion : CK\(36\) : AC\(7\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Pravastatin : CK\(31\) : AC\(4\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Cytotoxic : CK\(45\) : AC\(28\)](#)

[Statin drug induced myopathy is amplified in the rats administered cyclosporine A. - GMI](#)

Summary

Pubmed Data : J Pharmacol Exp Ther. 1991 Jun;257(3):1225-35. PMID: [1904494](#)

Article Published Date : Jun 01, 1991

Authors : P F Smith, R S Eydelloth, S J Grossman, R J Stubbs, M S Schwartz, J I Germershausen, K P Vyas, P H Kari, J S MacDonald

Study Type : Animal Study

Additional Links

Diseases : [Cholestasis : CK\(95\) : AC\(21\)](#), [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [Myopathies : CK\(94\) : AC\(18\)](#), [Organ Transplantation : CK\(39\) : AC\(17\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Cyclosporins : CK\(2\) : AC\(1\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: Diabetes Mellitus: Type 2

Statin drugs increase the risk of diabetes and cause abnormal liver enzyme elevations. - GMI

Summary

Pubmed Data : QJM. 2011 Sep 14. Epub 2011 Sep 14. PMID: [21920996](#)

Article Published Date : Sep 14, 2011

Authors : M Alberton, P Wu, E Druyts, M Briel, E J Mills

Study Type : Meta Analysis

Additional Links

Diseases : [AST: Elevated : CK\(4\) : AC\(2\)](#), [Diabetes Insipidus : CK\(11\) : AC\(4\)](#), [Diabetes Mellitus: Type 2 : CK\(2400\) : AC\(309\)](#), [Elevated: ALT : CK\(20\) : AC\(1\)](#), [Elevated: Creatinine Kinase : CK\(20\) : AC\(1\)](#), [GGT : CK\(25\) : AC\(5\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Hepatotoxic : CK\(95\) : AC\(34\)](#)

In a pooled analysis of data from 5 statin trials, intensive-dose statin therapy was associated with an increased risk of new-onset diabetes compared with moderate-dose statin therapy. -

GMI Summary

Pubmed Data : JAMA. 2011 Jun 22;305(24):2556-64. PMID: [21693744](#)

Article Published Date : Jun 22, 2011

Authors : David Preiss, Sreenivasa Rao Kondapally Seshasai, Paul Welsh, Sabina A Murphy, Jennifer E Ho, David D Waters, David A DeMicco, Philip Barter, Christopher P Cannon, Marc S Sabatine, Eugene Braunwald, John J P Kastelein, James A de Lemos, Michael A Blazing, Terje R Pedersen, Matti J Tikkanen, Naveed Sattar, Kausik K Ray

Study Type : Meta Analysis

Additional Links

Diseases : [Diabetes Mellitus: Type 2 : CK\(2400\) : AC\(309\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Diabetogenic : CK\(89\) : AC\(9\)](#)

There are 17 randomized trials on statin treatment showing an increased incidence of diabetes.

- GMI Summary

Pubmed Data : QJM. 2010 Oct 7. Epub 2010 Oct 7. PMID: [20934984](#)

Article Published Date : Oct 07, 2010

Authors : E J Mills, P Wu, G Chong, I Ghement, S Singh, E A Akl, O Eyawo, G Guyatt, O Berwanger, M Briel

Study Type : Meta Analysis

Additional Links

Diseases : [Blood Sugar Problems : CK\(3162\) : AC\(650\)](#), [Diabetes Mellitus: Type 1 : CK\(933\) : AC\(212\)](#), [Diabetes Mellitus: Type 2 : CK\(2400\) : AC\(309\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Diabetogenic : CK\(89\) : AC\(9\)](#)

[Statins increase the risk of developing type 2 diabetes.](#) - GMI Summary

Pubmed Data : Lancet. 2010 Feb 27;375(9716):735-42. Epub 2010 Feb 16. PMID: [20167359](#)

Article Published Date : Feb 27, 2010

Authors : Naveed Sattar, David Preiss, Heather M Murray, Paul Welsh, Brendan M Buckley, Anton J M de Craen, Sreenivasa Rao Kondapally Seshasai, John J McMurray, Dilys J Freeman, J Wouter Jukema, Peter W Macfarlane, Chris J Packard, David J Stott, Rudi G Westendorp, James Shepherd, Barry R Davis, Sara L Pressel, Roberto Marchioli, Rosa Maria Marfisi, Aldo P Maggioni, Luigi Tavazzi, Gianni Tognoni, John Kjekshus, Terje R Pedersen, Thomas J Cook, Antonio M Gotto, Michael B Clearfield, John R Downs, Haruo Nakamura, Yasuo Ohashi, Kyoichi Mizuno, Kausik K Ray, Ian Ford

Study Type : Human Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3849\) : AC\(615\)](#), [Cholesterol: High : CK\(634\) : AC\(152\)](#), [Diabetes Mellitus: Type 2 : CK\(2400\) : AC\(309\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Atorvastatin treatment is not effective in reducing inflammation \(C-reactive protein\) or outcome in patients with type 2 diabetes on hemodialysis.](#) - GMI Summary

Pubmed Data : Kidney Int. 2008 Dec;74(11):1461-7. Epub 2008 Sep 24. PMID: [18818679](#)

Article Published Date : Dec 01, 2008

Authors : Vera Krane, Karl Winkler, Christiane Drechsler, Jürgen Lilienthal, Winfried März, Christoph Wanner,

Study Type : Human Study

Additional Links

Diseases : [C-Reactive Protein : CK\(425\) : AC\(72\)](#), [Diabetes Mellitus: Type 2 : CK\(2400\) : AC\(309\)](#), [Hemodialysis : CK\(293\) : AC\(41\)](#), [Inflammation : CK\(835\) : AC\(334\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#)

Topic: [Cardiovascular Diseases](#)

[Statin drug use is associated with lower bilirubin levels, a known risk factor for cardiovascular disease.](#) - GMI Summary

Pubmed Data : Atherosclerosis. 2011 Jul 23. Epub 2011 Jul 23. PMID: [21840000](#)

Article Published Date : Jul 23, 2011

Authors : Kwok Leung Ong, Ben J Wu, Bernard M Y Cheung, Philip J Barter, Kerry-Anne Rye

Study Type : Human Study

Additional Links

Diseases : [Bilirubin: Low : CK\(20\) : AC\(2\)](#), [Cardiovascular Diseases : CK\(3849\) : AC\(615\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Statins increase the risk of developing type 2 diabetes.](#) - GMI Summary

Pubmed Data : Lancet. 2010 Feb 27;375(9716):735-42. Epub 2010 Feb 16. PMID: [20167359](#)

Article Published Date : Feb 27, 2010

Authors : Naveed Sattar, David Preiss, Heather M Murray, Paul Welsh, Brendan M Buckley, Anton J M de Craen,

Sreenivasa Rao Kondapally Seshasai, John J McMurray, Dilys J Freeman, J Wouter Jukema, Peter W Macfarlane, Chris J Packard, David J Stott, Rudi G Westendorp, James Shepherd, Barry R Davis, Sara L Pressel, Roberto Marchioli, Rosa Maria Marfisi, Aldo P Maggioni, Luigi Tavazzi, Gianni Tognoni, John Kjekshus, Terje R Pedersen, Thomas J Cook, Antonio M Gotto, Michael B Clearfield, John R Downs, Haruo Nakamura, Yasuo Ohashi, Kyoichi Mizuno, Kausik K Ray, Ian Ford

Study Type : Human Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3849\) : AC\(615\)](#), [Cholesterol: High : CK\(634\) : AC\(152\)](#), [Diabetes Mellitus: Type 2 : CK\(2400\) : AC\(309\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Unintended consequences of statin drug use are increased risk of esophageal cancer, kidney failure, cataract, liver dysfunction and myopathies.](#) - GMI Summary

Pubmed Data : BMJ. 2010;340:c2197. Epub 2010 May 20. PMID: [20488911](#)

Article Published Date : Jan 01, 2010

Authors : Julia Hippisley-Cox, Carol Coupland

Study Type : Human Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3849\) : AC\(615\)](#), [Cataract : CK\(160\) : AC\(53\)](#), [Chemically-Induced Liver Damage : CK\(386\) : AC\(145\)](#), [Esophageal Cancer : CK\(201\) : AC\(53\)](#), [Kidney Failure : CK\(228\) : AC\(42\)](#), [Myopathies : CK\(94\) : AC\(18\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Fluvastatin : CK\(13\) : AC\(3\)](#), [Pravastatin : CK\(31\) : AC\(4\)](#), [Rosuvastatin : CK\(28\) : AC\(6\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Statin therapy decreases myocardial \(heart\) function.](#) - GMI Summary

Pubmed Data : Clin Cardiol. 2009 Dec;32(12):684-9. PMID: [20027659](#)

Article Published Date : Dec 01, 2009

Authors : Jack Rubinstein, Feras Aloka, George S Abela

Study Type : Human Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3849\) : AC\(615\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Simvastatin decreases coenzyme q10 levels in the left ventricle of the heart and skeletal muscle.](#) - GMI Summary

Pubmed Data : Physiol Res. 2007;56 Suppl 2:S49-54. Epub 2007 Sep 5. PMID: [17824807](#)

Article Published Date : Jan 01, 2007

Authors : J Kucharská, A Gvozdjáková, F Simko

Study Type : Animal Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3849\) : AC\(615\)](#), [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [Hypertension : CK\(1321\) : AC\(255\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Cardiotoxic : CK\(467\) : AC\(53\)](#), [Myotoxicity : CK\(44\) : AC\(11\)](#)

[Atorvastatin decreases the coenzyme Q10 level in the blood of patients at risk for cardiovascular disease and stroke.](#) - GMI Summary

Pubmed Data : Arch Neurol. 2004 Jun;61(6):889-92. PMID: [15210526](#)

Article Published Date : Jun 01, 2004

Authors : Tatjana Rundek, Ali Naini, Ralph Sacco, Kristen Coates, Salvatore DiMauro

Study Type : Human Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3849\) : AC\(615\)](#), [Coenzyme Q10 Deficiency : CK\(42\) : AC\(5\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#), [Stroke : CK\(452\) : AC\(44\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#)

Topic: [Chemically-Induced Liver Damage](#)

[Liver failure and damage are rare but severe unintended consequences of statin drug use.](#) -

GMI Summary

Pubmed Data : J Hepatol. 2011 Aug 31. Epub 2011 Aug 31. PMID: [21889469](#)

Article Published Date : Aug 31, 2011

Authors : Einar Björnsson, Elin I Jacobsen, Evangelos Kalaitzakis

Study Type : Human Study

Additional Links

Diseases : [Chemically-Induced Liver Damage : CK\(386\) : AC\(145\)](#), [Liver Damage : CK\(496\) : AC\(172\)](#), [Liver Disease : CK\(95\) : AC\(29\)](#), [Liver Failure: Drug Induced : CK\(13\) : AC\(2\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Fluvastatin : CK\(13\) : AC\(3\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Hepatotoxic : CK\(95\) : AC\(34\)](#)

[Unintended consequences of statin drug use are increased risk of esophageal cancer, kidney failure, cataract, liver dysfunction and myopathies.](#) - GMI Summary

Pubmed Data : BMJ. 2010;340:c2197. Epub 2010 May 20. PMID: [20488911](#)

Article Published Date : Jan 01, 2010

Authors : Julia Hippisley-Cox, Carol Coupland

Study Type : Human Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3849\) : AC\(615\)](#), [Cataract : CK\(160\) : AC\(53\)](#), [Chemically-Induced Liver Damage : CK\(386\) : AC\(145\)](#), [Esophageal Cancer : CK\(201\) : AC\(53\)](#), [Kidney Failure : CK\(228\) : AC\(42\)](#), [Myopathies : CK\(94\) : AC\(18\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Fluvastatin : CK\(13\) : AC\(3\)](#), [Pravastatin : CK\(31\) : AC\(4\)](#), [Rosuvastatin : CK\(28\) : AC\(6\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Statin drugs induce a variety of potential adverse "peliotropic" effects.](#) - GMI Summary

Pubmed Data : Curr Drug Saf. 2009 Sep;4(3):209-28. Epub 2009 Sep 1. PMID: [19534648](#)

Article Published Date : Sep 01, 2009

Authors : Jerzy Bełtowski, Grazyna Wójcicka, Anna Jamroz-Wiśniewska

Study Type : Review

Additional Links

Diseases : [Chemically-Induced Liver Damage : CK\(386\) : AC\(145\)](#), [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [Mineral Deficiencies: Selenium : CK\(15\) : AC\(6\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Additional Keywords : [Drug-Nutrient Depletion : CK\(64\) : AC\(10\)](#), [Statin-Selenium Deficiency : CK\(4\) : AC\(4\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Statin-induced liver injury may result from the suppression of selenoprotein expression. - GMI](#)

Summary

Pubmed Data : Mol Pharmacol. 2009 Jun;75(6):1421-9. Epub 2009 Mar 30. PMID: [19332511](#)

Article Published Date : Jun 01, 2009

Authors : Andrea Kromer, Bernd Moosmann

Study Type : In Vitro Study

Additional Links

Diseases : [Chemically-Induced Liver Damage](#) : CK(386) : AC(145), [Drug-Induced Nutrient Depletion: Statin Drugs](#) : CK(66) : AC(17), [Mineral Deficiencies: Selenium](#) : CK(15) : AC(6), [Statin-Induced Pathologies](#) : CK(270) : AC(43)

Additional Keywords : [Statin-Selenium Deficiency](#) : CK(4) : AC(4)

Problem Substances : [Atorvastatin](#) : CK(150) : AC(19), [Statin Drugs](#) : CK(1135) : AC(96)

[Statin drugs \(HMG-CoA reductase inhibitors\) induce programmed cell death in human liver cells. - GMI Summary](#)

Pubmed Data : Biochem Pharmacol. 2004 Jun 15;67(12):2175-86. PMID: [15163549](#)

Article Published Date : Jun 15, 2004

Authors : Toshio Kubota, Koji Fujisaki, Yoshinori Itoh, Takahisa Yano, Toshiaki Sendo, Ryozo Oishi

Study Type : In Vitro Study

Additional Links

Diseases : [Chemically-Induced Liver Damage](#) : CK(386) : AC(145), [Statin-Induced Pathologies](#) : CK(270) : AC(43)

Problem Substances : [Statin Drugs](#) : CK(1135) : AC(96)

Topic: [Copper Deficiency](#)

[Statin therapy is associated with decreased serum levels of zinc and copper. - GMI Summary](#)

Pubmed Data : J Trace Elem Med Biol. 2005;19(1):61-7. PMID: [16240674](#)

Article Published Date : Jan 01, 2005

Authors : Majid Ghayour-Mobarhan, David J Lamb, Andrew Taylor, Nandita Vaidya, Callum Livingstone, Timothy Wang, Gordon A A Ferns

Study Type : Human Study

Additional Links

Diseases : [Copper Deficiency](#) : CK(44) : AC(5), [Hyperlipidemia](#) : CK(864) : AC(105), [Zinc Deficiency](#) : CK(53) : AC(5)

Problem Substances : [Atorvastatin](#) : CK(150) : AC(19), [Simvastatin](#) : CK(197) : AC(24), [Statin Drugs](#) : CK(1135) : AC(96)

[Statin therapy is associated with decreased serum levels of zinc and copper. - GMI Summary](#)

Pubmed Data : J Trace Elem Med Biol. 2005;19(1):61-7. PMID: [16240674](#)

Article Published Date : Jan 01, 2005

Authors : Majid Ghayour-Mobarhan, David J Lamb, Andrew Taylor, Nandita Vaidya, Callum Livingstone, Timothy Wang, Gordon A A Ferns

Study Type : Meta Analysis

Additional Links

Diseases : [Copper Deficiency](#) : CK(44) : AC(5), [Hyperlipidemia](#) : CK(864) : AC(105), [Zinc Deficiency](#) : CK(53) : AC(5)

Problem Substances : [Atorvastatin](#) : CK(150) : AC(19), [Simvastatin](#) : CK(197) : AC(24), [Statin Drugs](#) : CK(1135) : AC(96)

Topic: Zinc Deficiency

Statin therapy is associated with decreased serum levels of zinc and copper. - GMI Summary

Pubmed Data : J Trace Elem Med Biol. 2005;19(1):61-7. PMID: [16240674](#)

Article Published Date : Jan 01, 2005

Authors : Majid Ghayour-Mobarhan, David J Lamb, Andrew Taylor, Nandita Vaidya, Callum Livingstone, Timothy Wang, Gordon A A Ferns

Study Type : Human Study

Additional Links

Diseases : [Copper Deficiency : CK\(44\) : AC\(5\)](#), [Hyperlipidemia : CK\(864\) : AC\(105\)](#), [Zinc Deficiency : CK\(53\) : AC\(5\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Statin therapy is associated with decreased serum levels of zinc and copper. - GMI Summary

Pubmed Data : J Trace Elem Med Biol. 2005;19(1):61-7. PMID: [16240674](#)

Article Published Date : Jan 01, 2005

Authors : Majid Ghayour-Mobarhan, David J Lamb, Andrew Taylor, Nandita Vaidya, Callum Livingstone, Timothy Wang, Gordon A A Ferns

Study Type : Meta Analysis

Additional Links

Diseases : [Copper Deficiency : CK\(44\) : AC\(5\)](#), [Hyperlipidemia : CK\(864\) : AC\(105\)](#), [Zinc Deficiency : CK\(53\) : AC\(5\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: Coenzyme Q10 Deficiency

Atorvastatin reduces serum coenzyme Q10 levels (reduced and oxidized forms) in patients with high cholesterol. - GMI Summary

Pubmed Data : J Atheroscler Thromb. 2005;12(2):111-9. PMID: [15942122](#)

Article Published Date : Jan 01, 2005

Authors : Hiroshi Mabuchi, Toshinori Higashikata, Masaaki Kawashiri, Shoji Katsuda, Mihoko Mizuno, Atsushi Nohara, Akihiro Inazu, Junji Koizumi, Junji Kobayashi

Study Type : Human Study

Additional Links

Diseases : [Coenzyme Q10 Deficiency : CK\(42\) : AC\(5\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Atorvastatin decreases the coenzyme Q10 level in the blood of patients at risk for cardiovascular disease and stroke. - GMI Summary

Pubmed Data : Arch Neurol. 2004 Jun;61(6):889-92. PMID: [15210526](#)

Article Published Date : Jun 01, 2004

Authors : Tatjana Rundek, Ali Naini, Ralph Sacco, Kristen Coates, Salvatore DiMauro

Study Type : Human Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3849\) : AC\(615\)](#), [Coenzyme Q10 Deficiency : CK\(42\) : AC\(5\)](#), [Statin-Induced](#)

[Pathologies : CK\(270\) : AC\(43\)](#), [Stroke : CK\(452\) : AC\(44\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#)

[Statins lower plasma and lymphocyte ubiquinol/ubiquinone \(coQ10\) levels.](#) - GMI Summary

Pubmed Data : Biofactors. 2003;18(1-4):113-24. PMID: [14695926](#)

Article Published Date : Jan 01, 2003

Authors : Siro Passi, Andrea Stancato, Enrico Aleo, Anna Dmitrieva, Gian Paolo Littarru

Study Type : Human Study

Additional Links

Diseases : [Coenzyme Q10 Deficiency : CK\(42\) : AC\(5\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Pravastatin : CK\(31\) : AC\(4\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Mitochondrial Myopathies](#)

[Statin drugs impair mitochondrial function and decrease ubiquinone \(coenzyme Q10\) levels.](#) - GMI Summary

Pubmed Data : Toxicol Mech Methods. 2009 Jan;19(1):44-50. PMID: [19778232](#)

Article Published Date : Jan 01, 2009

Authors : Andrew J Duncan, Iain P Hargreaves, Maxwell S Damian, John M Land, Simon J R Heales

Study Type : Human Study

Additional Links

Diseases : [Mitochondrial Myopathies : CK\(33\) : AC\(5\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Lipophilic statin drugs are associated with impaired skeletal muscle mitochondria.](#) - GMI Summary

Pubmed Data : Cell Mol Life Sci. 2006 Oct;63(19-20):2415-25. PMID: [17013560](#)

Article Published Date : Oct 01, 2006

Authors : P Kaufmann, M Török, A Zahno, K M Waldhauser, K Brecht, S Krähenbühl

Study Type : Animal Study

Additional Links

Diseases : [Mitochondrial Myopathies : CK\(33\) : AC\(5\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Cerivastatin : CK\(2\) : AC\(1\)](#), [Fluvastatin : CK\(13\) : AC\(3\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Statin-related myopathy is associated with low muscle levels of coenzyme Q10.](#) - GMI Summary

Pubmed Data : Arch Neurol. 2005 Nov;62(11):1709-12. PMID: [16286544](#)

Article Published Date : Nov 01, 2005

Authors : Costanza Lamperti, Ali B Naini, Valeria Lucchini, Alessandro Prella, Nereo Bresolin, Maurizio Moggio, Monica Sciacco, Petra Kaufmann, Salvatore DiMauro

Study Type : Human Study

Additional Links

Diseases : [Mitochondrial Myopathies : CK\(33\) : AC\(5\)](#), [Myopathy : CK\(50\) : AC\(6\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Statin drugs lead to changes in statin sterol metabolism and aggressive statin treatment may adversely effect mitochondrial volume.](#) - GMI Summary

Pubmed Data : Clin Pharmacol Ther. 2005 Jul;78(1):60-8. PMID: [16003294](#)

Article Published Date : Jul 01, 2005

Authors : Hannu Päivä, Karin M Thelen, Rudy Van Coster, Joël Smet, Boel De Paepe, Kari M Mattila, Juha Laakso, Terho Lehtimäki, Klaus von Bergmann, Dieter Lütjohann, Reijo Laaksonen

Study Type : Human Study

Additional Links

Diseases : [Mitochondrial Dysfunction : CK\(95\) : AC\(35\)](#), [Mitochondrial Myopathies : CK\(33\) : AC\(5\)](#), [Myopathies : CK\(94\) : AC\(18\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: Drug-Induced Nutrient Depletion: Statin Drugs

[Statin drugs adversely effect memory likely through depletion of coenzyme q10 and interference with mitochondrial function in the brain.](#) - GMI Summary

Pubmed Data : Neurosci Lett. 2011 Jul 8. Epub 2011 Jul 8. PMID: [21763754](#)

Article Published Date : Jul 08, 2011

Authors : M Fux, J Levine, A Aviv, R H Belmaker

Study Type : Animal Study

Additional Links

Diseases : [Cognitive Decline/Dysfunction : CK\(350\) : AC\(71\)](#), [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Neurotoxic : CK\(689\) : AC\(87\)](#)

[Statin drugs may cause myopathy by lowering vitamin E levels.](#) - GMI Summary

Pubmed Data : Med Hypotheses. 2009 Nov 5. Epub 2009 Nov 5. PMID: [19896775](#)

Article Published Date : Nov 05, 2009

Authors : Francesco Galli, Luigi Iuliano

Study Type : Review

Additional Links

Diseases : [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#), [Vitamin E Deficiency : CK\(25\) : AC\(4\)](#)

Additional Keywords : [Statin-Vitamin E Deficiency : CK\(10\) : AC\(1\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Statin drugs induce a variety of potential adverse "peliotropic" effects.](#) - GMI Summary

Pubmed Data : Curr Drug Saf. 2009 Sep;4(3):209-28. Epub 2009 Sep 1. PMID: [19534648](#)

Article Published Date : Sep 01, 2009

Authors : Jerzy Bełtowski, Grazyna Wójcicka, Anna Jamroz-Wiśniewska

Study Type : Review

Additional Links

Diseases : [Chemically-Induced Liver Damage](#) : CK(386) : AC(145), [Drug-Induced Nutrient Depletion: Statin Drugs](#) : CK(66) : AC(17), [Mineral Deficiencies: Selenium](#) : CK(15) : AC(6), [Statin-Induced Pathologies](#) : CK(270) : AC(43)
Additional Keywords : [Drug-Nutrient Depletion](#) : CK(64) : AC(10), [Statin-Selenium Deficiency](#) : CK(4) : AC(4)
Problem Substances : [Statin Drugs](#) : CK(1135) : AC(96)

[Statin-induced liver injury may result from the suppression of selenoprotein expression.](#) - GMI Summary

Pubmed Data : Mol Pharmacol. 2009 Jun;75(6):1421-9. Epub 2009 Mar 30. PMID: [19332511](#)

Article Published Date : Jun 01, 2009

Authors : Andrea Kromer, Bernd Moosmann

Study Type : In Vitro Study

Additional Links

Diseases : [Chemically-Induced Liver Damage](#) : CK(386) : AC(145), [Drug-Induced Nutrient Depletion: Statin Drugs](#) : CK(66) : AC(17), [Mineral Deficiencies: Selenium](#) : CK(15) : AC(6), [Statin-Induced Pathologies](#) : CK(270) : AC(43)

Additional Keywords : [Statin-Selenium Deficiency](#) : CK(4) : AC(4)

Problem Substances : [Atorvastatin](#) : CK(150) : AC(19), [Statin Drugs](#) : CK(1135) : AC(96)

[Simvastatin decreases coenzyme q10 levels in the left ventricle of the heart and skeletal muscle.](#) - GMI Summary

Pubmed Data : Physiol Res. 2007;56 Suppl 2:S49-54. Epub 2007 Sep 5. PMID: [17824807](#)

Article Published Date : Jan 01, 2007

Authors : J Kucharská, A Gvozdjáková, F Simko

Study Type : Animal Study

Additional Links

Diseases : [Cardiovascular Diseases](#) : CK(3849) : AC(615), [Drug-Induced Nutrient Depletion: Statin Drugs](#) : CK(66) : AC(17), [Hypertension](#) : CK(1321) : AC(255), [Statin-Induced Pathologies](#) : CK(270) : AC(43)

Problem Substances : [Simvastatin](#) : CK(197) : AC(24), [Statin Drugs](#) : CK(1135) : AC(96)

Adverse Pharmacological Actions : [Cardiotoxic](#) : CK(467) : AC(53), [Myotoxicity](#) : CK(44) : AC(11)

[Statins and fenofibrates may exert their wide range of adverse side effects through interfering with selenoprotein expression.](#) - GMI Summary

Pubmed Data : Trends Cardiovasc Med. 2004 Oct;14(7):273-81. PMID: [15542379](#)

Article Published Date : Oct 01, 2004

Authors : Bernd Moosmann, Christian Behl

Study Type : Review

Additional Links

Diseases : [Drug-Induced Nutrient Depletion: Statin Drugs](#) : CK(66) : AC(17), [High Cholesterol](#) : CK(865) : AC(192), [Mineral Deficiencies: Selenium](#) : CK(15) : AC(6), [Statin-Induced Pathologies](#) : CK(270) : AC(43)

Additional Keywords : [Drug-Nutrient Depletion](#) : CK(64) : AC(10), [Statin-Selenium Deficiency](#) : CK(4) : AC(4)

Problem Substances : [Fenofibrates](#) : CK(66) : AC(11), [Statin Drugs](#) : CK(1135) : AC(96)

[Statin drugs may induce selenium deficiency which may explain many of its enigmatic side effects.](#) - GMI Summary

Pubmed Data : Lancet. 2004 Mar 13;363(9412):892-4. PMID: [15031036](#)

Article Published Date : Mar 13, 2004

Authors : Bernd Moosmann, Christian Behl

Study Type : Review

Additional Links

Diseases : [Coronary Artery Disease : CK\(942\) : AC\(133\)](#), [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Mineral Deficiencies: Selenium : CK\(15\) : AC\(6\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Additional Keywords : [Statin-Selenium Deficiency : CK\(4\) : AC\(4\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Myotoxicity : CK\(44\) : AC\(11\)](#)

[The depletion of coq10 by statin drugs may be contributing to increasing rates of congestive heart failure. - GMI Summary](#)

Pubmed Data : Biofactors. 2003;18(1-4):101-11. PMID: [14695925](#)

Article Published Date : Jan 01, 2003

Authors : Peter H Langsjoen, Alena M Langsjoen

Study Type : Review

Additional Links

Diseases : [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [Heart Failure : CK\(452\) : AC\(85\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Additional Keywords : [Drug-Nutrient Depletion : CK\(64\) : AC\(10\)](#), [Statin-Coq10 Depletion : CK\(36\) : AC\(7\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Cardiotoxic : CK\(467\) : AC\(53\)](#)

[Type 2 diabetic patients patients treated with statin drugs have decreased coq10 levels and may be associated with subclinical diabetic cardiomyopathy reversible by CoQ10 supplementation. - GMI Summary](#)

Pubmed Data : Arzneimittelforschung. 1999 Apr;49(4):324-9. PMID: [10337451](#)

Article Published Date : Apr 01, 1999

Authors : Y Miyake, A Shouzu, M Nishikawa, T Yonemoto, H Shimizu, S Omoto, T Hayakawa, M Inada

Study Type : Human Study

Additional Links

Diseases : [Cardiomyopathy : CK\(75\) : AC\(15\)](#), [Diabetes: Cardiovascular Illness : CK\(503\) : AC\(103\)](#), [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Additional Keywords : [Drug-Nutrient Depletion : CK\(64\) : AC\(10\)](#), [Statin-Coq10 Depletion : CK\(36\) : AC\(7\)](#)

Problem Substances : [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Cardiotoxic : CK\(467\) : AC\(53\)](#)

[Lovastatin decreases coenzyme Q10 levels in rats. - GMI Summary](#)

Pubmed Data : Proc Natl Acad Sci U S A. 1990 Nov;87(22):8928-30. PMID: [2247467](#)

Article Published Date : Nov 01, 1990

Authors : R A Willis, K Folkers, J L Tucker, C Q Ye, L J Xia, H Tamagawa

Study Type : Animal Study

Additional Links

Diseases : [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Additional Keywords : [Statin-Coq10 Depletion : CK\(36\) : AC\(7\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#)

[Lovastatin decreases coenzyme Q levels associated with compromised cardiac function in](#)

humans. - GMI Summary

Pubmed Data : Proc Natl Acad Sci U S A. 1990 Nov;87(22):8931-4. PMID: [2247468](#)

Article Published Date : Nov 01, 1990

Authors : K Folkers, P Langsjoen, R Willis, P Richardson, L J Xia, C Q Ye, H Tamagawa

Study Type : Human Study

Additional Links

Diseases : [Coronary Artery Disease : CK\(942\) : AC\(133\)](#), [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Cardiotoxic : CK\(467\) : AC\(53\)](#)

Topic: Cataract

Unintended consequences of statin drug use are increased risk of esophageal cancer, kidney failure, cataract, liver dysfunction and myopathies. - GMI Summary

Pubmed Data : BMJ. 2010;340:c2197. Epub 2010 May 20. PMID: [20488911](#)

Article Published Date : Jan 01, 2010

Authors : Julia Hippisley-Cox, Carol Coupland

Study Type : Human Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3849\) : AC\(615\)](#), [Cataract : CK\(160\) : AC\(53\)](#), [Chemically-Induced Liver Damage : CK\(386\) : AC\(145\)](#), [Esophageal Cancer : CK\(201\) : AC\(53\)](#), [Kidney Failure : CK\(228\) : AC\(42\)](#), [Myopathies : CK\(94\) : AC\(18\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Fluvastatin : CK\(13\) : AC\(3\)](#), [Pravastatin : CK\(31\) : AC\(4\)](#), [Rosuvastatin : CK\(28\) : AC\(6\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: Esophageal Cancer

Unintended consequences of statin drug use are increased risk of esophageal cancer, kidney failure, cataract, liver dysfunction and myopathies. - GMI Summary

Pubmed Data : BMJ. 2010;340:c2197. Epub 2010 May 20. PMID: [20488911](#)

Article Published Date : Jan 01, 2010

Authors : Julia Hippisley-Cox, Carol Coupland

Study Type : Human Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3849\) : AC\(615\)](#), [Cataract : CK\(160\) : AC\(53\)](#), [Chemically-Induced Liver Damage : CK\(386\) : AC\(145\)](#), [Esophageal Cancer : CK\(201\) : AC\(53\)](#), [Kidney Failure : CK\(228\) : AC\(42\)](#), [Myopathies : CK\(94\) : AC\(18\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Fluvastatin : CK\(13\) : AC\(3\)](#), [Pravastatin : CK\(31\) : AC\(4\)](#), [Rosuvastatin : CK\(28\) : AC\(6\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: Kidney Failure

Unintended consequences of statin drug use are increased risk of esophageal cancer, kidney

[failure, cataract, liver dysfunction and myopathies.](#) - GMI Summary

Pubmed Data : BMJ. 2010;340:c2197. Epub 2010 May 20. PMID: [20488911](#)

Article Published Date : Jan 01, 2010

Authors : Julia Hippisley-Cox, Carol Coupland

Study Type : Human Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3849\) : AC\(615\)](#), [Cataract : CK\(160\) : AC\(53\)](#), [Chemically-Induced Liver Damage : CK\(386\) : AC\(145\)](#), [Esophageal Cancer : CK\(201\) : AC\(53\)](#), [Kidney Failure : CK\(228\) : AC\(42\)](#), [Myopathies : CK\(94\) : AC\(18\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Fluvastatin : CK\(13\) : AC\(3\)](#), [Pravastatin : CK\(31\) : AC\(4\)](#), [Rosuvastatin : CK\(28\) : AC\(6\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Coronary Artery Disease](#)

[Statin drugs may induce selenium deficiency which may explain many of its enigmatic side effects.](#) - GMI Summary

Pubmed Data : Lancet. 2004 Mar 13;363(9412):892-4. PMID: [15031036](#)

Article Published Date : Mar 13, 2004

Authors : Bernd Moosmann, Christian Behl

Study Type : Review

Additional Links

Diseases : [Coronary Artery Disease : CK\(942\) : AC\(133\)](#), [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Mineral Deficiencies: Selenium : CK\(15\) : AC\(6\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Additional Keywords : [Statin-Selenium Deficiency : CK\(4\) : AC\(4\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Myotoxicity : CK\(44\) : AC\(11\)](#)

[Lovastatin enhances the susceptibility of LDL cholesterol to oxidation.](#) - GMI Summary

Pubmed Data : FEBS Lett. 1997 Jun 30;410(2-3):254-8. PMID: [9237640](#)

Article Published Date : Jun 30, 1997

Authors : A Palomäki, K Malminiemi, T Metsä-Ketelä

Study Type : Human Study

Additional Links

Diseases : [Cholesterol: Oxidation : CK\(329\) : AC\(96\)](#), [Coronary Artery Disease : CK\(942\) : AC\(133\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Cardiotoxic : CK\(467\) : AC\(53\)](#), [Oxidant : CK\(63\) : AC\(23\)](#)

[Lovastatin decreases coenzyme Q levels associated with compromised cardiac function in humans.](#) - GMI Summary

Pubmed Data : Proc Natl Acad Sci U S A. 1990 Nov;87(22):8931-4. PMID: [2247468](#)

Article Published Date : Nov 01, 1990

Authors : K Folkers, P Langsjoen, R Willis, P Richardson, L J Xia, C Q Ye, H Tamagawa

Study Type : Human Study

Additional Links

Diseases : [Coronary Artery Disease : CK\(942\) : AC\(133\)](#), [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)
Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)
Adverse Pharmacological Actions : [Cardiotoxic : CK\(467\) : AC\(53\)](#)

Topic: [AST: Elevated](#)

[Statin drugs increase the risk of diabetes and cause abnormal liver enzyme elevations.](#) - GMI Summary

Pubmed Data : QJM. 2011 Sep 14. Epub 2011 Sep 14. PMID: [21920996](#)

Article Published Date : Sep 14, 2011

Authors : M Alberton, P Wu, E Druyts, M Briel, E J Mills

Study Type : Meta Analysis

Additional Links

Diseases : [AST: Elevated : CK\(4\) : AC\(2\)](#), [Diabetes Insipidus : CK\(11\) : AC\(4\)](#), [Diabetes Mellitus: Type 2 : CK\(2400\) : AC\(309\)](#), [Elevated: ALT : CK\(20\) : AC\(1\)](#), [Elevated: Creatinine Kinase : CK\(20\) : AC\(1\)](#), [GGT : CK\(25\) : AC\(5\)](#)
Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)
Adverse Pharmacological Actions : [Hepatotoxic : CK\(95\) : AC\(34\)](#)

Topic: [Diabetes Insipidus](#)

[Statin drugs increase the risk of diabetes and cause abnormal liver enzyme elevations.](#) - GMI Summary

Pubmed Data : QJM. 2011 Sep 14. Epub 2011 Sep 14. PMID: [21920996](#)

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Authors : M Alberton, P Wu, E Druyts, M Briel, E J Mills

Study Type : Meta Analysis

Additional Links

Diseases : [AST: Elevated : CK\(4\) : AC\(2\)](#), [Diabetes Insipidus : CK\(11\) : AC\(4\)](#), [Diabetes Mellitus: Type 2 : CK\(2400\) : AC\(309\)](#), [Elevated: ALT : CK\(20\) : AC\(1\)](#), [Elevated: Creatinine Kinase : CK\(20\) : AC\(1\)](#), [GGT : CK\(25\) : AC\(5\)](#)
Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)
Adverse Pharmacological Actions : [Hepatotoxic : CK\(95\) : AC\(34\)](#)

Topic: [Diabetes Mellitus: Type 1](#)

[Statin drugs increase the risk of diabetes.](#) - GMI Summary

Pubmed Data : Curr Opin Cardiol. 2011 Jul;26(4):342-7. PMID: [21499090](#)

Article Published Date : Jul 01, 2011

Authors : Uchechukwu K Sampson, Macrae F Linton, Sergio Fazio

Study Type : Meta Analysis

Additional Links

Diseases : [Diabetes Mellitus: Type 1 : CK\(933\) : AC\(212\)](#), [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)
Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions :[Diabetogenic : CK\(89\) : AC\(9\)](#)

[There are 17 randomized trials on statin treatment showing an increased incidence of diabetes.](#)

- GMI Summary

Pubmed Data : QJM. 2010 Oct 7. Epub 2010 Oct 7. PMID: [20934984](#)

Article Published Date : Oct 07, 2010

Authors : E J Mills, P Wu, G Chong, I Ghement, S Singh, E A Akl, O Eyawo, G Guyatt, O Berwanger, M Briel

Study Type : Meta Analysis

Additional Links

Diseases : [Blood Sugar Problems : CK\(3162\) : AC\(650\)](#), [Diabetes Mellitus: Type 1 : CK\(933\) : AC\(212\)](#), [Diabetes Mellitus: Type 2 : CK\(2400\) : AC\(309\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions :[Diabetogenic : CK\(89\) : AC\(9\)](#)

Topic: [Elevated: ALT](#)

[Statin drugs increase the risk of diabetes and cause abnormal liver enzyme elevations.](#) - GMI

Summary

Pubmed Data : QJM. 2011 Sep 14. Epub 2011 Sep 14. PMID: [21920996](#)

Article Published Date : Sep 14, 2011

Authors : M Alberton, P Wu, E Druyts, M Briel, E J Mills

Study Type : Meta Analysis

Additional Links

Diseases : [AST: Elevated : CK\(4\) : AC\(2\)](#), [Diabetes Insipidus : CK\(11\) : AC\(4\)](#), [Diabetes Mellitus: Type 2 : CK\(2400\) : AC\(309\)](#), [Elevated: ALT : CK\(20\) : AC\(1\)](#), [Elevated: Creatinine Kinase : CK\(20\) : AC\(1\)](#), [GGT : CK\(25\) : AC\(5\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions :[Hepatotoxic : CK\(95\) : AC\(34\)](#)

Topic: [Elevated: Creatinine Kinase](#)

[Statin drugs increase the risk of diabetes and cause abnormal liver enzyme elevations.](#) - GMI

Summary

Pubmed Data : QJM. 2011 Sep 14. Epub 2011 Sep 14. PMID: [21920996](#)

Article Published Date : Sep 14, 2011

Authors : M Alberton, P Wu, E Druyts, M Briel, E J Mills

Study Type : Meta Analysis

Additional Links

Diseases : [AST: Elevated : CK\(4\) : AC\(2\)](#), [Diabetes Insipidus : CK\(11\) : AC\(4\)](#), [Diabetes Mellitus: Type 2 : CK\(2400\) : AC\(309\)](#), [Elevated: ALT : CK\(20\) : AC\(1\)](#), [Elevated: Creatinine Kinase : CK\(20\) : AC\(1\)](#), [GGT : CK\(25\) : AC\(5\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions :[Hepatotoxic : CK\(95\) : AC\(34\)](#)

Topic: [GGT](#)

[Statin drugs increase the risk of diabetes and cause abnormal liver enzyme elevations. - GMI](#)

Summary

Pubmed Data : QJM. 2011 Sep 14. Epub 2011 Sep 14. PMID: [21920996](#)

Article Published Date : Sep 14, 2011

Authors : M Alberton, P Wu, E Druyts, M Briel, E J Mills

Study Type : Meta Analysis

Additional Links

Diseases : [AST: Elevated : CK\(4\) : AC\(2\)](#), [Diabetes Insipidus : CK\(11\) : AC\(4\)](#), [Diabetes Mellitus: Type 2 : CK\(2400\) : AC\(309\)](#), [Elevated: ALT : CK\(20\) : AC\(1\)](#), [Elevated: Creatinine Kinase : CK\(20\) : AC\(1\)](#), [GGT : CK\(25\) : AC\(5\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Hepatotoxic : CK\(95\) : AC\(34\)](#)

Topic: [Liver Damage](#)

[Liver failure and damage are rare but severe unintended consequences of statin drug use. -](#)

GMI Summary

Pubmed Data : J Hepatol. 2011 Aug 31. Epub 2011 Aug 31. PMID: [21889469](#)

Article Published Date : Aug 31, 2011

Authors : Einar Björnsson, Elin I Jacobsen, Evangelos Kalaitzakis

Study Type : Human Study

Additional Links

Diseases : [Chemically-Induced Liver Damage : CK\(386\) : AC\(145\)](#), [Liver Damage : CK\(496\) : AC\(172\)](#), [Liver Disease : CK\(95\) : AC\(29\)](#), [Liver Failure: Drug Induced : CK\(13\) : AC\(2\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Fluvastatin : CK\(13\) : AC\(3\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Hepatotoxic : CK\(95\) : AC\(34\)](#)

Topic: [Liver Disease](#)

[Liver failure and damage are rare but severe unintended consequences of statin drug use. -](#)

GMI Summary

Pubmed Data : J Hepatol. 2011 Aug 31. Epub 2011 Aug 31. PMID: [21889469](#)

Article Published Date : Aug 31, 2011

Authors : Einar Björnsson, Elin I Jacobsen, Evangelos Kalaitzakis

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Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Fluvastatin : CK\(13\) : AC\(3\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Hepatotoxic : CK\(95\) : AC\(34\)](#)

Topic: [Liver Failure: Drug Induced](#)

[Liver failure and damage are rare but severe unintended consequences of statin drug use.](#) -

GMI Summary

Pubmed Data : J Hepatol. 2011 Aug 31. Epub 2011 Aug 31. PMID: [21889469](#)

Article Published Date : Aug 31, 2011

Authors : Einar Björnsson, Elin I Jacobsen, Evangelos Kalaitzakis

Study Type : Human Study

Additional Links

Diseases : [Chemically-Induced Liver Damage](#) : CK(386) : AC(145), [Liver Damage](#) : CK(496) : AC(172), [Liver Disease](#) : CK(95) : AC(29), [Liver Failure: Drug Induced](#) : CK(13) : AC(2), [Statin-Induced Pathologies](#) : CK(270) : AC(43)

Problem Substances : [Atorvastatin](#) : CK(150) : AC(19), [Fluvastatin](#) : CK(13) : AC(3), [Simvastatin](#) : CK(197) : AC(24), [Statin Drugs](#) : CK(1135) : AC(96)

Adverse Pharmacological Actions : [Hepatotoxic](#) : CK(95) : AC(34)

Topic: [Myopathy](#)

[Statins have been associated with immune-mediated necrotizing myopathy.](#) - GMI Summary

Pubmed Data : Muscle Nerve. 2010 Feb;41(2):185-90. PMID: [19813188](#)

Article Published Date : Feb 01, 2010

Authors : Phyllis Grable-Esposito, Hans D Katzberg, Steven A Greenberg, Jayashri Srinivasan, Jonathan Katz, Anthony A Amato

Study Type : Human Study

Additional Links

Diseases : [Autoimmune Diseases](#) : CK(3943) : AC(738), [Myopathy](#) : CK(50) : AC(6), [Statin-Induced Pathologies](#) : CK(270) : AC(43)

Problem Substances : [Statin Drugs](#) : CK(1135) : AC(96)

[Statin-associated myopathy may indicate structural muscle damage even when levels of creatine phosphokinase levels are normal.](#) - GMI Summary

Pubmed Data : CMAJ. 2009 Jul 7;181(1-2):E11-8. PMID: [19581603](#)

Article Published Date : Jul 07, 2009

Authors : Markus G Mohaupt, Richard H Karas, Eduard B Babiychuk, Verónica Sanchez-Freire, Katia Monastyrskaya, Lakshmanan Iyer, Hans Hoppeler, Fabio Breil, Annette Draeger

Study Type : Human Study

Additional Links

Diseases : [Myopathy](#) : CK(50) : AC(6)

Problem Substances : [Statin Drugs](#) : CK(1135) : AC(96)

[Statin-related myopathy is associated with low muscle levels of coenzyme Q10.](#) - GMI Summary

Pubmed Data : Arch Neurol. 2005 Nov;62(11):1709-12. PMID: [16286544](#)

Article Published Date : Nov 01, 2005

Authors : Costanza Lamperti, Ali B Naini, Valeria Lucchini, Alessandro Prella, Nereo Bresolin, Maurizio Moggio, Monica Sciacco, Petra Kaufmann, Salvatore DiMauro

Study Type : Human Study

Additional Links

Diseases : [Mitochondrial Myopathies](#) : CK(33) : AC(5), [Myopathy](#) : CK(50) : AC(6), [Statin-Induced Pathologies](#) : CK(270) :

[AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Statin drugs may induces myopathy without being indicated in abnormal creatine kinase levels.](#) - GMI Summary

Pubmed Data : Ann Intern Med. 2002 Oct 1;137(7):581-5. PMID: [12353945](#)

Article Published Date : Oct 01, 2002

Authors : Paul S Phillips, Richard H Haas, Sergei Bannykh, Stephanie Hathaway, Nancy L Gray, Bruce J Kimura, Georgirene D Vladutiu, John D F England,

Study Type : Human Study

Additional Links

Diseases : [Myopathy : CK\(50\) : AC\(6\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Rhabdomyolysis](#)

[Concomitant administration of simvastatin and danazol has been associated with fatal rhabdomyolysis.](#) - GMI Summary

Pubmed Data : Clin Ther. 2010 May;32(5):909-14. PMID: [20685498](#)

Article Published Date : May 01, 2010

Authors : Ivan Stankovic, Alja Vlahovic-Stipac, Biljana Putnikovic, Zorica Cvetkovic, Aleksandar N Neskovic

Study Type : Human: Case Report

Additional Links

Diseases : [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [Rhabdomyolysis : CK\(37\) : AC\(6\)](#), [Rhabdomyolysis: Fatal : CK\(3\) : AC\(1\)](#)

Problem Substances : [Danazol : CK\(4\) : AC\(2\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#)

[The risk of rhabdomyolysis \(severe muscle toxicity\) from statin drugs increases with increase in systemic exposure.](#) - GMI Summary

Pubmed Data : Pharmacoepidemiol Drug Saf. 2009 Dec 14. PMID: [20014178](#)

Article Published Date : Dec 14, 2009

Authors : Karin Hedenmalm, Gunnar Alvan, Patrik Ohagen, Marja-Liisa Dahl

Study Type : Human Study

Additional Links

Diseases : [Rhabdomyolysis : CK\(37\) : AC\(6\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Simvastatin 80 mg daily is associated with a higher incidence of myotoxicity compared with maximum approved doses of other statins.](#) - GMI Summary

Pubmed Data : Ann Pharmacother. 2009 Dec;43(12):2012-20. Epub 2009 Nov 17. PMID: [19920157](#)

Article Published Date : Dec 01, 2009

Authors : James M Backes, Patricia A Howard, Janelle F Ruisinger, Patrick M Moriarty

Study Type : Human Study

Additional Links

Diseases : [Myotoxicity : CK\(10\) : AC\(1\)](#), [Rhabdomyolysis : CK\(37\) : AC\(6\)](#)

Problem Substances : [Simvastatin : CK\(197\) : AC\(24\)](#)

[Statin drugs have been linked to myopathy, including rhabdomyolysis.](#) - GMI Summary

Pubmed Data : Arch Intern Med. 2005 Dec 12-26;165(22):2671-6. PMID: [16344427](#)

Article Published Date : Dec 12, 2005

Authors : Karen E Hansen, Julie P Hildebrand, Edwin E Ferguson, James H Stein

Study Type : Human Study

Additional Links

Diseases : [Myopathies : CK\(94\) : AC\(18\)](#), [Rhabdomyolysis : CK\(37\) : AC\(6\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Myotoxicity : CK\(44\) : AC\(11\)](#)

Topic: [Cardiomyopathy](#)

[Atorvastatin causes cardiomyopathy when administered in combination with chemotherapy.](#) - GMI Summary

Pubmed Data : Cell Biochem Funct. 2007 Jul-Aug;25(4):463-72. PMID: [16906597](#)

Article Published Date : Jul 01, 2007

Authors : Metin Caner, Bingur Sonmez, Ozlem Kumaz, Caner Aldemir, Seda Salar, Tuncay Altug, Ayhan Bilir, Meric A Altinoz

Study Type : Human Study

Additional Links

Diseases : [Cardiomyopathy : CK\(75\) : AC\(15\)](#), [Chemotherapy-Induced Toxicity : CK\(666\) : AC\(183\)](#)

Additional Keywords : [Drug Interaction : CK\(36\) : AC\(5\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#)

[Statin drugs \(HMG-CoA reductase inhibitors\) induce programmed cell death in human heart cells.](#) - GMI Summary

Pubmed Data : Biochem Pharmacol. 2006 Apr 28;71(9):1324-30. Epub 2006 Mar 15. PMID: [16540096](#)

Article Published Date : Apr 28, 2006

Authors : Svitlana Demyanets, Christoph Kaun, Stefan Pfaffenberger, Philipp J Hohensinner, Gersina Rega, Johannes Pammer, Gerald Maurer, Kurt Huber, Johann Wojta

Study Type : In Vitro Study

Additional Links

Diseases : [Cardiomyopathy : CK\(75\) : AC\(15\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Type 2 diabetic patients treated with statin drugs have decreased coq10 levels and may be associated with subclinical diabetic cardiomyopathy reversible by CoQ10 supplementation.](#) - GMI Summary

Pubmed Data : Arzneimittelforschung. 1999 Apr;49(4):324-9. PMID: [10337451](#)

Article Published Date : Apr 01, 1999

Authors : Y Miyake, A Shouzu, M Nishikawa, T Yonemoto, H Shimizu, S Omoto, T Hayakawa, M Inada

Study Type : Human Study

Additional Links

Diseases : [Cardiomyopathy](#) : CK(75) : AC(15), [Diabetes: Cardiovascular Illness](#) : CK(503) : AC(103), [Drug-Induced Nutrient Depletion: Statin Drugs](#) : CK(66) : AC(17), [Statin-Induced Pathologies](#) : CK(270) : AC(43)

Additional Keywords : [Drug-Nutrient Depletion](#) : CK(64) : AC(10), [Statin-Coq10 Depletion](#) : CK(36) : AC(7)

Problem Substances : [Simvastatin](#) : CK(197) : AC(24), [Statin Drugs](#) : CK(1135) : AC(96)

Adverse Pharmacological Actions : [Cardiotoxic](#) : CK(467) : AC(53)

Topic: [Cancers: All](#)

[Ezetimibe and simvastatin use is associated with increased cancer incidence and death.](#) - GMI

Summary

Pubmed Data : Heart Lung Circ. 2009 Oct;18(5):343-6. Epub 2009 Jul 7. PMID: [19586799](#)

Article Published Date : Oct 01, 2009

Authors : Ian Hamilton-Craig, Karam Kostner, David Colquhoun, Stan Woodhouse

Study Type : Meta Analysis

Additional Links

Diseases : [Cancers: All](#) : CK(6410) : AC(2509)

Problem Substances : [Simvastatin](#) : CK(197) : AC(24)

Adverse Pharmacological Actions : [Carcinogenic](#) : CK(416) : AC(81)

[Statin drugs are associated with increased risk of cancers of the thyroid, esophagus, urinary tract and possibly increased lung cancer in women.](#) - GMI Summary

Pubmed Data : Pharmacoepidemiol Drug Saf. 2008 Jan;17(1):27-36. PMID: [17944002](#)

Article Published Date : Jan 01, 2008

Authors : Gary D Friedman, E Dawn Flick, Natalia Udaltsova, James Chan, Charles P Quesenberry, Laurel A Habel

Study Type : Human Study

Additional Links

Diseases : [Cancers: All](#) : CK(6410) : AC(2509)

Problem Substances : [Statin Drugs](#) : CK(1135) : AC(96)

Topic: [Hemodialysis](#)

[Although statin drugs decrease LDL cholesterol in end-stage kidney disease, their use does not lower morbidity or mortality.](#) - GMI Summary

Pubmed Data : Pharmacotherapy. 2010 Aug;30(8):823-9. PMID: [20653359](#)

Article Published Date : Aug 01, 2010

Authors : Joel C Marrs, Joseph J Saseen

Study Type : Human Study

Additional Links

Diseases : [Cardiac mortality](#) : CK(559) : AC(65), [Hemodialysis](#) : CK(293) : AC(41), [Kidney Diseases](#) : CK(347) : AC(67),

[Renal Failure: Chronic](#) : CK(10) : AC(1)

Problem Substances : [Atorvastatin](#) : CK(150) : AC(19), [Rosuvastatin](#) : CK(28) : AC(6), [Statin Drugs](#) : CK(1135) : AC(96)

[Atorvastatin treatment is not effective in reducing inflammation \(C-reactive protein\) or outcome in patients with type 2 diabetes on hemodialysis.](#) - GMI Summary

Pubmed Data : Kidney Int. 2008 Dec;74(11):1461-7. Epub 2008 Sep 24. PMID: [18818679](#)

Article Published Date : Dec 01, 2008

Authors : Vera Krane, Karl Winkler, Christiane Drechsler, Jürgen Lilienthal, Winfried März, Christoph Wanner,

Study Type : Human Study

Additional Links

Diseases : [C-Reactive Protein : CK\(425\) : AC\(72\)](#), [Diabetes Mellitus: Type 2 : CK\(2400\) : AC\(309\)](#), [Hemodialysis : CK\(293\) : AC\(41\)](#), [Inflammation : CK\(835\) : AC\(334\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#)

Topic: [Mitochondrial Dysfunction](#)

[Statin drugs lead to changes in statin sterol metabolism and aggressive statin treatment may adversely effect mitochondrial volume. - GMI Summary](#)

Pubmed Data : Clin Pharmacol Ther. 2005 Jul;78(1):60-8. PMID: [16003294](#)

Article Published Date : Jul 01, 2005

Authors : Hannu Päivä, Karin M Thelen, Rudy Van Coster, Joél Smet, Boel De Paepe, Kari M Mattila, Juha Laakso, Terho Lehtimäki, Klaus von Bergmann, Dieter Lütjohann, Reijo Laaksonen

Study Type : Human Study

Additional Links

Diseases : [Mitochondrial Dysfunction : CK\(95\) : AC\(35\)](#), [Mitochondrial Myopathies : CK\(33\) : AC\(5\)](#), [Myopathies : CK\(94\) : AC\(18\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Cholesterol: Oxidation](#)

[The statin drug lovastatin reduces the antioxidant capacity of LDL, indicating it may increase the oxidation of LDL cholesterol. - GMI Summary](#)

Pubmed Data : Arterioscler Thromb Vasc Biol. 1999 Jun;19(6):1541-8. PMID: [10364087](#)

Article Published Date : Jun 01, 1999

Authors : A Palomäki, K Malminiemi, O Malminiemi, T Solakivi

Study Type : Animal Study

Additional Links

Diseases : [Cholesterol: Oxidation : CK\(329\) : AC\(96\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Lovastatin enhances the susceptibility of LDL cholesterol to oxidation. - GMI Summary](#)

Pubmed Data : FEBS Lett. 1997 Jun 30;410(2-3):254-8. PMID: [9237640](#)

Article Published Date : Jun 30, 1997

Authors : A Palomäki, K Malminiemi, T Metsä-Ketelä

Study Type : Human Study

Additional Links

Diseases : [Cholesterol: Oxidation : CK\(329\) : AC\(96\)](#), [Coronary Artery Disease : CK\(942\) : AC\(133\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Cardiotoxic : CK\(467\) : AC\(53\)](#), [Oxidant : CK\(63\) : AC\(23\)](#)

Topic: Prenatal Chemical Exposures

Warfarin and lovastatin exhibit embryotoxic potential. - GMI Summary

Pubmed Data : Reprod Toxicol. 2010 Aug;30(1):121-30. Epub 2010 May 20. PMID: [20493250](#)

Article Published Date : Aug 01, 2010

Authors : Karlfried Groebe, Katrin Hayess, Martina Klemm-Manns, Gerhard Schwall, Wojciech Wozny, Margino Steemans, Annelieke K Peters, Chaturvedala Sastri, Petra Jaeckel, Werner Stegmann, Helmut Zengerling, Rainer Schöpf, Slobodan Poznanovic, Tina C Stummann, Andrea Seiler, Horst Spielmann, André Schratzenholz

Study Type : In Vitro Study

Additional Links

Diseases : [Prenatal Chemical Exposures : CK\(237\) : AC\(73\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Warfarin : CK\(236\) : AC\(27\)](#)

Adverse Pharmacological Actions : [Embryotoxic : CK\(7\) : AC\(4\)](#), [Teratogenic : CK\(266\) : AC\(48\)](#)

Prenatal exposure to statin drugs results in reduced gestational age at birth and lower birth weight. - GMI Summary

Pubmed Data : Reprod Toxicol. 2008 Oct;26(2):175-7. Epub 2008 Jul 1. PMID: [18640262](#)

Article Published Date : Oct 01, 2008

Authors : Nobuko Taguchi, Evelyn T Rubin, Akiko Hosokawa, Jacquelyn Choi, Angela Yating Ying, Myla E Moretti, Gideon Koren, Shinya Ito

Study Type : Human Study

Additional Links

Diseases : [Infants: Low Birth Weight : CK\(102\) : AC\(11\)](#), [Premature Birth : CK\(330\) : AC\(41\)](#), [Prenatal Chemical Exposures : CK\(237\) : AC\(73\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: Amyotrophic Lateral Sclerosis

Statin drugs may cause ALS-like neurodegeneration in susceptible individuals. - GMI Summary

Pubmed Data : Drug Saf. 2009;32(8):649-61. PMID: [19591530](#)

Article Published Date : Jan 01, 2009

Authors : Beatrice A Golomb, Edwin K Kwon, Sabrina Koperski, Marcella A Evans

Study Type : Human Study

Additional Links

Diseases : [Amyotrophic Lateral Sclerosis : CK\(335\) : AC\(68\)](#), [Neurodegenerative Diseases : CK\(1452\) : AC\(404\)](#), [Oxidative Stress : CK\(1696\) : AC\(682\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Statin drug use may be linked to neuromuscular diseases and an amyotrophic lateral sclerosis-like syndrome. - GMI Summary

Pubmed Data : Drug Saf. 2007;30(6):515-25. PMID: [17536877](#)

Article Published Date : Jan 01, 2007

Authors : I Ralph Edwards, Kristina Star, Anne Kiuru

Study Type : Human Study

Additional Links

Diseases : [Amyotrophic Lateral Sclerosis : CK\(335\) : AC\(68\)](#), [Neuromuscular Diseases : CK\(11\) : AC\(2\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Aortic Stenosis](#)

[A combination of ezetimibe and simvastatin do not reduce aortic valve stenosis.](#) - GMI

Summary

Pubmed Data : Am J Cardiol. 2010 Dec 1;106(11):1634-9. Epub 2010 Oct 14. PMID: [21094366](#)

Article Published Date : Dec 01, 2010

Authors : Eva Gerds, Anne Bjørhovde Rossebø, Terje Rolf Pedersen, Kurt Boman, Philippe Brudi, John Boyd Chambers, Kenneth Egstrup, Christa Gohlke-Bärwolf, Ingar Holme, Y Antero Kesäniemi, William Malbecq, Christoph Nienaber, Simon Ray, Terje Skjærpe, Kristian Wachtell, Ronnie Willenheimer

Study Type : Meta Analysis

Additional Links

Diseases : [Aortic Stenosis : CK\(41\) : AC\(11\)](#)

Problem Substances : [Ezetimibe \(trade name Zetia\) : CK\(20\) : AC\(1\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#)

Topic: [Blood Sugar Problems](#)

[There are 17 randomized trials on statin treatment showing an increased incidence of diabetes.](#)

- GMI Summary

Pubmed Data : QJM. 2010 Oct 7. Epub 2010 Oct 7. PMID: [20934984](#)

Article Published Date : Oct 07, 2010

Authors : E J Mills, P Wu, G Chong, I Ghement, S Singh, E A Akl, O Eyawo, G Guyatt, O Berwanger, M Briel

Study Type : Meta Analysis

Additional Links

Diseases : [Blood Sugar Problems : CK\(3162\) : AC\(650\)](#), [Diabetes Mellitus: Type 1 : CK\(933\) : AC\(212\)](#), [Diabetes Mellitus: Type 2 : CK\(2400\) : AC\(309\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Diabetogenic : CK\(89\) : AC\(9\)](#)

Topic: [Cardiac mortality](#)

[Although statin drugs decrease LDL cholesterol in end-stage kidney disease, their use does not lower morbidity or mortality.](#) - GMI Summary

Pubmed Data : Pharmacotherapy. 2010 Aug;30(8):823-9. PMID: [20653359](#)

Article Published Date : Aug 01, 2010

Authors : Joel C Marrs, Joseph J Saseen

Study Type : Human Study

Additional Links

Diseases : [Cardiac mortality : CK\(559\) : AC\(65\)](#), [Hemodialysis : CK\(293\) : AC\(41\)](#), [Kidney Diseases : CK\(347\) : AC\(67\)](#), [Renal Failure: Chronic : CK\(10\) : AC\(1\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Rosuvastatin : CK\(28\) : AC\(6\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: Diabetes: Cardiovascular Illness

Type 2 diabetic patients treated with statin drugs have decreased coq10 levels and may be associated with subclinical diabetic cardiomyopathy reversible by CoQ10 supplementation. - GMI Summary

Pubmed Data : Arzneimittelforschung. 1999 Apr;49(4):324-9. PMID: [10337451](#)

Article Published Date : Apr 01, 1999

Authors : Y Miyake, A Shouzu, M Nishikawa, T Yonemoto, H Shimizu, S Omoto, T Hayakawa, M Inada

Study Type : Human Study

Additional Links

Diseases : [Cardiomyopathy](#) : CK(75) : AC(15), [Diabetes: Cardiovascular Illness](#) : CK(503) : AC(103), [Drug-Induced Nutrient Depletion: Statin Drugs](#) : CK(66) : AC(17), [Statin-Induced Pathologies](#) : CK(270) : AC(43)

Additional Keywords : [Drug-Nutrient Depletion](#) : CK(64) : AC(10), [Statin-Coq10 Depletion](#) : CK(36) : AC(7)

Problem Substances : [Simvastatin](#) : CK(197) : AC(24), [Statin Drugs](#) : CK(1135) : AC(96)

Adverse Pharmacological Actions : [Cardiotoxic](#) : CK(467) : AC(53)

Topic: Erectile Dysfunction

Statin therapy contributes to low testosterone and hypogonadism in men with erectile dysfunction - GMI Summary

Pubmed Data : J Sex Med. 2010 Apr;7(4 Pt 1):1547-56. Epub 2010 Feb 5. PMID: [20141585](#)

Article Published Date : Apr 01, 2010

Authors : Giovanni Corona, Valentina Boddi, Giancarlo Balercia, Giulia Rastrelli, Giulia De Vita, Alessandra Sforza, Gianni Forti, Edoardo Mannucci, Mario Maggi

Study Type : Human Study

Additional Links

Diseases : [Erectile Dysfunction](#) : CK(173) : AC(35), [High Cholesterol](#) : CK(865) : AC(192), [Hypogonadism](#) : CK(26) : AC(5), [Statin-Induced Pathologies](#) : CK(270) : AC(43), [Testosterone: Too Low](#) : CK(277) : AC(65)

Problem Substances : [Statin Drugs](#) : CK(1135) : AC(96)

Adverse Pharmacological Actions : [Endocrine Disruptor](#) : CK(283) : AC(56)

Statin use has been associated with erectile dysfunction. - GMI Summary

Pubmed Data : Drug Saf. 2009;32(7):591-7. PMID: [19530745](#)

Article Published Date : Jan 01, 2009

Authors : Catherine Do, Eric Huyghe, Maryse Lapeyre-Mestre, Jean Louis Montastruc, Haleh Bagheri

Study Type : Human Study

Additional Links

Diseases : [Erectile Dysfunction](#) : CK(173) : AC(35)

Problem Substances : [Statin Drugs](#) : CK(1135) : AC(96)

Topic: Infants: Low Birth Weight

Prenatal exposure to statin drugs results in reduced gestational age at birth and lower birth weight. - GMI Summary

Pubmed Data : *Reprod Toxicol.* 2008 Oct;26(2):175-7. Epub 2008 Jul 1. PMID: [18640262](#)

Article Published Date : Oct 01, 2008

Authors : Nobuko Taguchi, Evelyn T Rubin, Akiko Hosokawa, Jacquelyn Choi, Angela Yating Ying, Myla E Moretti, Gideon Koren, Shinya Ito

Study Type : Human Study

Additional Links

Diseases : [Infants: Low Birth Weight : CK\(102\) : AC\(11\)](#), [Premature Birth : CK\(330\) : AC\(41\)](#), [Prenatal Chemical Exposures : CK\(237\) : AC\(73\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Insomnia](#)

[Insomnia is a possible statin-associated psychiatric adverse effect.](#) - GMI Summary

Pubmed Data : *Drug Saf.* 2008;31(12):1115-23. PMID: [19026028](#)

Article Published Date : Jan 01, 2008

Authors : Marco Tuccori, Francesco Lapi, Arianna Testi, Daniela Coli, Ugo Moretti, Alfredo Vannacci, Domenico Motola, Francesco Salvo, Alma Lisa Rivolta, Corrado Blandizzi, Alessandro Mugelli, Mario Del Tacca

Study Type : Meta Analysis

Additional Links

Diseases : [Insomnia : CK\(297\) : AC\(52\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Interstitial Lung Diseases](#)

[Statin use is associated with an increased incidence of interstitial lung disease.](#) - GMI Summary

Pubmed Data : *Chest.* 2008 Oct;134(4):824-30. Epub 2008 Aug 8. PMID: [18689579](#)

Article Published Date : Oct 01, 2008

Authors : Antonio B Fernández, Richard H Karas, Alawi A Alsheikh-Ali, Paul D Thompson

Study Type : Meta Analysis

Additional Links

Diseases : [Hyperlipidemia : CK\(864\) : AC\(105\)](#), [Interstitial Lung Diseases : CK\(56\) : AC\(11\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Kidney Diseases](#)

[Although statin drugs decrease LDL cholesterol in end-stage kidney disease, their use does not lower morbidity or mortality.](#) - GMI Summary

Pubmed Data : *Pharmacotherapy.* 2010 Aug;30(8):823-9. PMID: [20653359](#)

Article Published Date : Aug 01, 2010

Authors : Joel C Marrs, Joseph J Saseen

Study Type : Human Study

Additional Links

Diseases : [Cardiac mortality : CK\(559\) : AC\(65\)](#), [Hemodialysis : CK\(293\) : AC\(41\)](#), [Kidney Diseases : CK\(347\) : AC\(67\)](#), [Renal Failure: Chronic : CK\(10\) : AC\(1\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Rosuvastatin : CK\(28\) : AC\(6\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Premature Birth](#)

[Prenatal exposure to statin drugs results in reduced gestational age at birth and lower birth weight.](#) - GMI Summary

Pubmed Data : [Reprod Toxicol. 2008 Oct;26\(2\):175-7. Epub 2008 Jul 1. PMID: 18640262](#)

Article Published Date : Oct 01, 2008

Authors : Nobuko Taguchi, Evelyn T Rubin, Akiko Hosokawa, Jacquelyn Choi, Angela Yating Ying, Myla E Moretti, Gideon Koren, Shinya Ito

Study Type : Human Study

Additional Links

Diseases : [Infants: Low Birth Weight : CK\(102\) : AC\(11\)](#), [Premature Birth : CK\(330\) : AC\(41\)](#), [Prenatal Chemical Exposures : CK\(237\) : AC\(73\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Renal Failure: Chronic](#)

[Although statin drugs decrease LDL cholesterol in end-stage kidney disease, their use does not lower morbidity or mortality.](#) - GMI Summary

Pubmed Data : [Pharmacotherapy. 2010 Aug;30\(8\):823-9. PMID: 20653359](#)

Article Published Date : Aug 01, 2010

Authors : Joel C Marrs, Joseph J Saseen

Study Type : Human Study

Additional Links

Diseases : [Cardiac mortality : CK\(559\) : AC\(65\)](#), [Hemodialysis : CK\(293\) : AC\(41\)](#), [Kidney Diseases : CK\(347\) : AC\(67\)](#), [Renal Failure: Chronic : CK\(10\) : AC\(1\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Rosuvastatin : CK\(28\) : AC\(6\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Sepsis](#)

[The statin drug atorvastatin is found in very high concentrations in intensive patients with sepsis.](#) - GMI Summary

Pubmed Data : [Intensive Care Med. 2009 Apr;35\(4\):717-21. Epub 2008 Nov 26. PMID: 19034423](#)

Article Published Date : Apr 01, 2009

Authors : Peter S Kruger, Noelle M Freir, Bala Venkatesh, Thomas A Robertson, Michael S Roberts, Mark Jones

Study Type : Human Study

Additional Links

Diseases : [Sepsis : CK\(107\) : AC\(25\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Stroke](#)

[The statin drug atorvastatin increases the risk of hemorrhagic stroke.](#) - GMI Summary

Pubmed Data : Neurology. 2008 Jun 10;70(24 Pt 2):2364-70. Epub 2007 Dec 12. PMID: [18077795](#)

Article Published Date : Jun 10, 2008

Authors : L B Goldstein, P Amarenco, M Szarek, A Callahan, M Hennerici, H Sillesen, J A Zivin, K M A Welch,

Study Type : Human Study

Additional Links

Diseases : [Stroke : CK\(452\) : AC\(44\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#)

[Atorvastatin decreases the coenzyme Q10 level in the blood of patients at risk for cardiovascular disease and stroke.](#) - GMI Summary

Pubmed Data : Arch Neurol. 2004 Jun;61(6):889-92. PMID: [15210526](#)

Article Published Date : Jun 01, 2004

Authors : Tatjana Rundek, Ali Naini, Ralph Sacco, Kristen Coates, Salvatore DiMauro

Study Type : Human Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3849\) : AC\(615\)](#), [Coenzyme Q10 Deficiency : CK\(42\) : AC\(5\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#), [Stroke : CK\(452\) : AC\(44\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#)

Topic: [Testicular Cancer](#)

[Statin-induced testicular pain has been reported.](#) - GMI Summary

Pubmed Data : Ann Pharmacother. 2007 Jan;41(1):138-42. Epub 2007 Jan 2. PMID: [17200428](#)

Article Published Date : Jan 01, 2007

Authors : Sunny A Linnebur, William H Hiatt

Study Type : Human Study

Additional Links

Diseases : [Testicular Cancer : CK\(21\) : AC\(6\)](#)

Problem Substances : [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Testosterone: Too Low](#)

[Statin use is associated with lower testosterone levels.](#) - GMI Summary

Pubmed Data : Urology. 2010 Nov;76(5):1048-51. PMID: [20605197](#)

Article Published Date : Nov 01, 2010

Authors : Bulent Akduman, Daniel J Tandberg, Colin I O'Donnell, Alexa Hughes, Mark A Moyad, E David Crawford

Study Type : Human Study

Additional Links

Diseases : [Testosterone: Too Low : CK\(277\) : AC\(65\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Endocrine Disruptor : CK\(283\) : AC\(56\)](#)

[Statin therapy contributes to low testosterone and hypogonadism in men with erectile](#)

[dysfunction](#) - GMI Summary

Pubmed Data : J Sex Med. 2010 Apr;7(4 Pt 1):1547-56. Epub 2010 Feb 5. PMID: [20141585](#)

Article Published Date : Apr 01, 2010

Authors : Giovanni Corona, Valentina Boddi, Giancarlo Balercia, Giulia Rastrelli, Giulia De Vita, Alessandra Sforza, Gianni Forti, Edoardo Mannucci, Mario Maggi

Study Type : Human Study

Additional Links

Diseases : [Erectile Dysfunction](#) : CK(173) : AC(35), [High Cholesterol](#) : CK(865) : AC(192), [Hypogonadism](#) : CK(26) : AC(5), [Statin-Induced Pathologies](#) : CK(270) : AC(43), [Testosterone: Too Low](#) : CK(277) : AC(65)

Problem Substances : [Statin Drugs](#) : CK(1135) : AC(96)

Adverse Pharmacological Actions : [Endocrine Disruptor](#) : CK(283) : AC(56)

Topic: [Oxidative Stress](#)

[Atorvastatin treatment reduces exercise capacities in rats and exacerbates metabolic perturbations and oxidative stress in skeletal muscle.](#) - GMI Summary

Pubmed Data : J Appl Physiol. 2011 Aug 18. Epub 2011 Aug 18. PMID: [21852406](#)

Article Published Date : Aug 18, 2011

Authors : Jamal Bouitbir, Anne-Laure Charles, Laurence Rasseneur, Stéphane P Dufour, Francois Piquard, Bernard Geny, Joffrey Zoll

Study Type : Animal Study

Additional Links

Diseases : [Oxidative Stress](#) : CK(1696) : AC(682), [Statin-Induced Pathologies](#) : CK(270) : AC(43)

Problem Substances : [Atorvastatin](#) : CK(150) : AC(19), [Statin Drugs](#) : CK(1135) : AC(96)

Adverse Pharmacological Actions : [Oxidant](#) : CK(63) : AC(23)

[Statin drugs may cause ALS-like neurodegeneration in susceptible individuals.](#) - GMI Summary

Pubmed Data : Drug Saf. 2009;32(8):649-61. PMID: [19591530](#)

Article Published Date : Jan 01, 2009

Authors : Beatrice A Golomb, Edwin K Kwon, Sabrina Koperski, Marcella A Evans

Study Type : Human Study

Additional Links

Diseases : [Amyotrophic Lateral Sclerosis](#) : CK(335) : AC(68), [Neurodegenerative Diseases](#) : CK(1452) : AC(404), [Oxidative Stress](#) : CK(1696) : AC(682)

Problem Substances : [Statin Drugs](#) : CK(1135) : AC(96)

[Atorvastatin increases myocardial indices of oxidative stress in a porcine model of hypercholesterolemia and chronic ischemia.](#) - GMI Summary

Pubmed Data : J Card Surg. 2008 Jul-Aug;23(4):312-20. PMID: [18598320](#)

Article Published Date : Jul 01, 2008

Authors : Neel R Sodha, Munir Boodhwani, Basel Ramlawi, Richard T Clements, Shigetoshi Mieno, Jun Feng, Shu-Hua Xu, Cesario Bianchi, Frank W Sellke

Study Type : Animal Study

Additional Links

Diseases : [Endothelial Dysfunction](#) : CK(654) : AC(167), [High Cholesterol](#) : CK(865) : AC(192), [Oxidative Stress](#) : CK(1696)

[:AC\(682\)](#)

Problem Substances : [Atorvastatin :CK\(150\) : AC\(19\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Oxidant :CK\(63\) : AC\(23\)](#)

Topic: [Birth Defects](#)

[Risk documentation occurred in only 20% of women age 15-45 prescribed a medication known to contribute to birth defects.](#) - GMI Summary

Pubmed Data : J Am Board Fam Med. 2011 May-Jun;24(3):262-71. PMID: [21551398](#)

Article Published Date : May 01, 2011

Authors : Karie A Morrical-Kline, Alison M Walton, Tracey M Guildenbecher

Study Type : Human Study

Additional Links

Diseases : [Birth Defects : CK\(137\) : AC\(24\)](#), [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Angiotensin-Converting Enzyme \(ACE\) Inhibitor : CK\(50\) : AC\(5\)](#), [Angiotensin Receptor Blockers \(ARBs\) : CK\(10\) : AC\(1\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Teratogenic : CK\(266\) : AC\(48\)](#)

[Drugs targeting cholesterol synthesis are embryo lethal in mice and likely contribute to birth defects in humans.](#) - GMI Summary

Pubmed Data : Drug Metab Rev. 2011 Feb ;43(1):69-90. PMID: [21247357](#)

Article Published Date : Feb 01, 2011

Authors : Simon Horvat, Jim McWhir, Damjana Rozman

Study Type : Animal Study

Additional Links

Diseases : [Birth Defects : CK\(137\) : AC\(24\)](#), [Infant Mortality : CK\(194\) : AC\(17\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Teratogenic : CK\(266\) : AC\(48\)](#)

[Statin drugs cause early embryo lethality in animals.](#) - GMI Summary

Pubmed Data : J Biol Chem. 2003 Oct 31 ;278(44):42936-41. Epub 2003 Aug 14. PMID: [12920113](#)

Article Published Date : Oct 31, 2003

Authors : Ken Ohashi, Jun-ichi Osuga, Ryuichi Tozawa, Tetsuya Kitamine, Hiroaki Yagyu, Motohiro Sekiya, Sachiko Tomita, Hiroaki Okazaki, Yoshiaki Tamura, Naoya Yahagi, Yoko Iizuka, Kenji Harada, Takanari Gotoda, Hitoshi Shimano, Nobuhiro Yamada, Shun Ishibashi

Study Type : Animal Study

Additional Links

Diseases : [Birth Defects : CK\(137\) : AC\(24\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Teratogenic : CK\(266\) : AC\(48\)](#)

Topic: [Autoimmune Diseases](#)

[Statins have been associated with immune-mediated necrotizing myopathy.](#) - GMI Summary

Pubmed Data : Muscle Nerve. 2010 Feb;41(2):185-90. PMID: [19813188](#)

Article Published Date : Feb 01, 2010

Authors : Phyllis Grable-Esposito, Hans D Katzberg, Steven A Greenberg, Jayashri Srinivasan, Jonathan Katz, Anthony A Amato

Study Type : Human Study

Additional Links

Diseases : [Autoimmune Diseases : CK\(3943\) : AC\(738\)](#), [Myopathy : CK\(50\) : AC\(6\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Bacterial Infections and Mycoses](#)

[Early statin use appears to be associated with and increased risk of poststroke infection.](#) - GMI Summary

Pubmed Data : J Stroke Cerebrovasc Dis. 2011 Jul 20. Epub 2011 Jul 20. PMID: [21782466](#)

Article Published Date : Jul 20, 2011

Authors : Kyra Becker, Pat Tanzi, Angela Kalil, Dean Shibata, Kevin Cain

Study Type : Human Study

Additional Links

Diseases : [Bacterial Infections and Mycoses : CK\(96\) : AC\(50\)](#), [Stroke: Attenuation/Recovery : CK\(93\) : AC\(20\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Bilirubin: Low](#)

[Statin drug use is associated with lower bilirubin levels, a known risk factor for cardiovascular disease.](#) - GMI Summary

Pubmed Data : Atherosclerosis. 2011 Jul 23. Epub 2011 Jul 23. PMID: [21840000](#)

Article Published Date : Jul 23, 2011

Authors : Kwok Leung Ong, Ben J Wu, Bernard M Y Cheung, Philip J Barter, Kerry-Anne Rye

Study Type : Human Study

Additional Links

Diseases : [Bilirubin: Low : CK\(20\) : AC\(2\)](#), [Cardiovascular Diseases : CK\(3849\) : AC\(615\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Breast Cancer](#)

[Statin drug use is associated with increased risk of breast cancer in postmenopausal women without hormone therapy.](#) - GMI Summary

Pubmed Data : Anticancer Res. 2009 Dec;29(12):5143-8. PMID: [20044629](#)

Article Published Date : Dec 01, 2009

Authors : Mark Eaton, Jonathan Eklof, James R Beal, Abe E Sahmoun

Study Type : Human Study

Additional Links

Diseases : [Breast Cancer : CK\(1419\) : AC\(540\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Statin use is associated with an increased risk of breast cancer among statin users of 5 years or more.](#) - GMI Summary

Pubmed Data : Cancer Epidemiol Biomarkers Prev. 2007 Mar;16(3):416-21. PMID: [17372235](#)

Article Published Date : Mar 01, 2007

Authors : Denise M Boudreau, Onchee Yu, Diana L Miglioretti, Diana S M Buist, Susan R Heckbert, Janet R Daling

Study Type : Human Study

Additional Links

Diseases : [Breast Cancer : CK\(1419\) : AC\(540\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: C-Reactive Protein

[Atorvastatin treatment is not effective in reducing inflammation \(C-reactive protein\) or outcome in patients with type 2 diabetes on hemodialysis.](#) - GMI Summary

Pubmed Data : Kidney Int. 2008 Dec;74(11):1461-7. Epub 2008 Sep 24. PMID: [18818679](#)

Article Published Date : Dec 01, 2008

Authors : Vera Krane, Karl Winkler, Christiane Drechsler, Jürgen Lilienthal, Winfried März, Christoph Wanner,

Study Type : Human Study

Additional Links

Diseases : [C-Reactive Protein : CK\(425\) : AC\(72\)](#), [Diabetes Mellitus: Type 2 : CK\(2400\) : AC\(309\)](#), [Hemodialysis : CK\(293\) : AC\(41\)](#), [Inflammation : CK\(835\) : AC\(334\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#)

Topic: Chemotherapy-Induced Toxicity

[Atorvastatin causes cardiomyopathy when administered in combination with chemotherapy.](#) - GMI Summary

Pubmed Data : Cell Biochem Funct. 2007 Jul-Aug;25(4):463-72. PMID: [16906597](#)

Article Published Date : Jul 01, 2007

Authors : Metin Caner, Bingur Sonmez, Ozlem Kurnaz, Caner Aldemir, Seda Salar, Tuncay Altug, Ayhan Bilir, Meric A Altinoz

Study Type : Human Study

Additional Links

Diseases : [Cardiomyopathy : CK\(75\) : AC\(15\)](#), [Chemotherapy-Induced Toxicity : CK\(666\) : AC\(183\)](#)

Additional Keywords : [Drug Interaction : CK\(36\) : AC\(5\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#)

Topic: Cholesterol: High

[Statins increase the risk of developing type 2 diabetes. - GMI Summary](#)

Pubmed Data : Lancet. 2010 Feb 27;375(9716):735-42. Epub 2010 Feb 16. PMID: [20167359](#)

Article Published Date : Feb 27, 2010

Authors : Naveed Sattar, David Preiss, Heather M Murray, Paul Welsh, Brendan M Buckley, Anton J M de Craen, Sreenivasa Rao Kondapally Seshasai, John J McMurray, Dilys J Freeman, J Wouter Jukema, Peter W Macfarlane, Chris J Packard, David J Stott, Rudi G Westendorp, James Shepherd, Barry R Davis, Sara L Pressel, Roberto Marchioli, Rosa Maria Marfisi, Aldo P Maggioni, Luigi Tavazzi, Gianni Tognoni, John Kjekshus, Terje R Pedersen, Thomas J Cook, Antonio M Gotto, Michael B Clearfield, John R Downs, Haruo Nakamura, Yasuo Ohashi, Kyoichi Mizuno, Kausik K Ray, Ian Ford

Study Type : Human Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3849\) : AC\(615\)](#), [Cholesterol: High : CK\(634\) : AC\(152\)](#), [Diabetes Mellitus: Type 2 : CK\(2400\) : AC\(309\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Dysphagia](#)

[Dysphagia has been reported to be a side effect of statin drug therapy. - GMI Summary](#)

Pubmed Data : Ugeskr Laeger. 2010 Feb 15;172(7):544-545. PMID: [20156405](#)

Article Published Date : Feb 15, 2010

Authors : Bjarke Edholm

Study Type : Human Study

Additional Links

Diseases : [Dysphagia : CK\(40\) : AC\(6\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Hypogonadism](#)

[Statin therapy contributes to low testosterone and hypogonadism in men with erectile dysfunction - GMI Summary](#)

Pubmed Data : J Sex Med. 2010 Apr;7(4 Pt 1):1547-56. Epub 2010 Feb 5. PMID: [20141585](#)

Article Published Date : Apr 01, 2010

Authors : Giovanni Corona, Valentina Boddi, Giancarlo Balercia, Giulia Rastrelli, Giulia De Vita, Alessandra Sforza, Gianni Forti, Edoardo Mannucci, Mario Maggi

Study Type : Human Study

Additional Links

Diseases : [Erectile Dysfunction : CK\(173\) : AC\(35\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Hypogonadism : CK\(26\) : AC\(5\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#), [Testosterone: Too Low : CK\(277\) : AC\(65\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Endocrine Disruptor : CK\(283\) : AC\(56\)](#)

Topic: [Immune Disorders: Low Immune Function](#)

[Simvastatin impairs humoral and cell-mediated immunity in mice. - GMI Summary](#)

Pubmed Data : Eur J Immunol. 2008 Oct;38(10):2832-44. PMID: [18958884](#)

Article Published Date : Oct 01, 2008

Authors : Cristina Ulivieri, Daniela Fanigliulo, Daniela Benati, Franco Laghi Pasini, Cosima T Baldari

Study Type : Human Study

Additional Links

Diseases : [Immune Disorders: Low Immune Function : CK\(377\) : AC\(109\)](#)

Problem Substances : [Simvastatin : CK\(197\) : AC\(24\)](#)

Topic: [Inflammation](#)

[Atorvastatin treatment is not effective in reducing inflammation \(C-reactive protein\) or outcome in patients with type 2 diabetes on hemodialysis.](#) - GMI Summary

Pubmed Data : Kidney Int. 2008 Dec;74(11):1461-7. Epub 2008 Sep 24. PMID: [18818679](#)

Article Published Date : Dec 01, 2008

Authors : Vera Krane, Karl Winkler, Christiane Drechsler, Jürgen Lilienthal, Winfried März, Christoph Wanner,

Study Type : Human Study

Additional Links

Diseases : [C-Reactive Protein : CK\(425\) : AC\(72\)](#), [Diabetes Mellitus: Type 2 : CK\(2400\) : AC\(309\)](#), [Hemodialysis : CK\(293\) : AC\(41\)](#), [Inflammation : CK\(835\) : AC\(334\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#)

Topic: [Intracerebral Hemorrhage](#)

[Statins may increase intracerebral hemorrhage volume.](#) - GMI Summary

Pubmed Data : Can J Neurol Sci. 2010 Nov;37(6):791-6. PMID: [21059540](#)

Article Published Date : Nov 01, 2010

Authors : Geneviève Ricard, Marie-Pierre Garant, Nathalie Carrier, Nancy Leblanc, Jean-Martin Boulanger

Study Type : Human Study

Additional Links

Diseases : [Intracerebral Hemorrhage : CK\(120\) : AC\(8\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Lupus-Like Syndrome](#)

[Statin drug use is associated with a Lupus-Like syndrome.](#) - GMI Summary

Pubmed Data : Semin Arthritis Rheum. 2011 Aug 23. Epub 2011 Aug 23. PMID: [21868063](#)

Article Published Date : Aug 23, 2011

Authors :

Hilda J I de Jong, Jan Willem Cohen Tervaert, Siti R F Saldi, Rob J Vandebriel, Patrick C Souverein, Ronald H B Meyboom, Henk van Loveren, Olaf H Klungel

Study Type : Human Study

Additional Links

Diseases : [Lupus-Like Syndrome : CK\(10\) : AC\(1\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#), [Systemic Lupus Erythematosus : CK\(322\) : AC\(51\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Melanoma](#)

[Statin drug use is associated with increased incidence of melanoma and non-melanoma skin cancers.](#) - GMI Summary

Pubmed Data : Eur J Cancer. 2008 Oct;44(15):2122-32. Epub 2008 Aug 15. PMID: [18707867](#)

Article Published Date : Oct 01, 2008

Authors : Jaana Kuoppala, Anne Lamminpää, Eero Pukkala

Study Type : Human Study

Additional Links

Diseases : [Melanoma : CK\(154\) : AC\(83\)](#), [Skin Cancer : CK\(397\) : AC\(169\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Multiple Myeloma](#)

[High dose simvastatin may be harmful for patients with multiple myeloma.](#) - GMI Summary

Pubmed Data : Hematol Oncol. 2009 Mar;27(1):17-22. PMID: [18668701](#)

Article Published Date : Mar 01, 2009

Authors : T E Sondergaard, P T Pedersen, T L Andersen, K Søre, T Lund, B Ostergaard, P Garnero, J-M Delaisse, T Plesner

Study Type : Human Study

Additional Links

Diseases : [Multiple Myeloma : CK\(119\) : AC\(49\)](#)

Problem Substances : [Simvastatin : CK\(197\) : AC\(24\)](#)

Topic: [Myalgias](#)

[Statin-induced myalgia occurs in~10% of lipid clinic outpatients.](#) - GMI Summary

Pubmed Data : Atherosclerosis. 2011 Jul 20. Epub 2011 Jul 20. PMID: [21868014](#)

Article Published Date : Jul 20, 2011

Authors : Gualberto Ruaño, Andreas Windemuth, Alan H B Wu, John P Kane, Mary J Malloy, Clive R Pullinger, Mohan Kocherla, Kali Bogaard, Bruce R Gordon, Theodore R Holford, Ankur Gupta, Richard L Seip, Paul D Thompson

Study Type : Human Study

Additional Links

Diseases : [Myalgias : CK\(25\) : AC\(3\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Myotoxicity : CK\(44\) : AC\(11\)](#)

Topic: [Myotoxicity](#)

[Simvastatin 80 mg daily is associated with a higher incidence of myotoxicity compared with maximum approved doses of other statins.](#) - GMI Summary

Pubmed Data : Ann Pharmacother. 2009 Dec;43(12):2012-20. Epub 2009 Nov 17. PMID: [19920157](#)

Article Published Date : Dec 01, 2009

Authors : James M Backes, Patricia A Howard, Janelle F Ruisinger, Patrick M Moriarty

Study Type : Human Study

Additional Links

Diseases : [Myotoxicity : CK\(10\) : AC\(1\)](#), [Rhabdomyolysis : CK\(37\) : AC\(6\)](#)

Problem Substances : [Simvastatin : CK\(197\) : AC\(24\)](#)

Topic: [Neurodegenerative Diseases](#)

[Statin drugs may cause ALS-like neurodegeneration in susceptible individuals.](#) - GMI Summary

Pubmed Data : Drug Saf. 2009;32(8):649-61. PMID: [19591530](#)

Article Published Date : Jan 01, 2009

Authors : Beatrice A Golomb, Edwin K Kwon, Sabrina Koperski, Marcella A Evans

Study Type : Human Study

Additional Links

Diseases : [Amyotrophic Lateral Sclerosis : CK\(335\) : AC\(68\)](#), [Neurodegenerative Diseases : CK\(1452\) : AC\(404\)](#), [Oxidative Stress : CK\(1696\) : AC\(682\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Neuromuscular Diseases](#)

[Statin drug use may be linked to neuromuscular diseases and an amyotrophic lateral sclerosis-like syndrome.](#) - GMI Summary

Pubmed Data : Drug Saf. 2007;30(6):515-25. PMID: [17536877](#)

Article Published Date : Jan 01, 2007

Authors : I Ralph Edwards, Kristina Star, Anne Kiuru

Study Type : Human Study

Additional Links

Diseases : [Amyotrophic Lateral Sclerosis : CK\(335\) : AC\(68\)](#), [Neuromuscular Diseases : CK\(11\) : AC\(2\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Rheumatoid Arthritis](#)

[Statin drug use is associated with a significantly increased risk of rheumatoid arthritis.](#) - GMI Summary

Pubmed Data : Ann Rheum Dis. 2011 Oct 6. Epub 2011 Oct 6. PMID: [21979000](#)

Article Published Date : Oct 06, 2011

Authors : H J I de Jong, O H Klungel, L van Dijk, R J Vandebriel, H G M Leufkens, Jw van der Laan, J W Cohen Tervaert, H van Loveren

Study Type : Human Study

Additional Links

Diseases : [Rheumatoid Arthritis : CK\(273\) : AC\(59\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Skin Cancer](#)

[Statin drug use is associated with increased incidence of melanoma and non-melanoma skin cancers.](#) - GMI Summary

Pubmed Data : Eur J Cancer. 2008 Oct;44(15):2122-32. Epub 2008 Aug 15. PMID: [18707867](#)

Article Published Date : Oct 01, 2008

Authors : Jaana Kuoppala, Anne Lamminpää, Eero Pukkala

Study Type : Human Study

Additional Links

Diseases : [Melanoma](#) : [CK\(154\)](#) : [AC\(83\)](#), [Skin Cancer](#) : [CK\(397\)](#) : [AC\(169\)](#)

Problem Substances : [Statin Drugs](#) : [CK\(1135\)](#) : [AC\(96\)](#)

Topic: [Stroke: Attenuation/Recovery](#)

[Early statin use appears to be associated with and increased risk of poststroke infection.](#) - GMI Summary

Pubmed Data : J Stroke Cerebrovasc Dis. 2011 Jul 20. Epub 2011 Jul 20. PMID: [21782466](#)

Article Published Date : Jul 20, 2011

Authors : Kyra Becker, Pat Tanzi, Angela Kalil, Dean Shibata, Kevin Cain

Study Type : Human Study

Additional Links

Diseases : [Bacterial Infections and Mycoses](#) : [CK\(96\)](#) : [AC\(50\)](#), [Stroke: Attenuation/Recovery](#) : [CK\(93\)](#) : [AC\(20\)](#)

Problem Substances : [Statin Drugs](#) : [CK\(1135\)](#) : [AC\(96\)](#)

Topic: [Systemic Lupus Erythematosus](#)

[Statin drug use is associated with a Lupus-Like syndrome.](#) - GMI Summary

Pubmed Data : Semin Arthritis Rheum. 2011 Aug 23. Epub 2011 Aug 23. PMID: [21868063](#)

Article Published Date : Aug 23, 2011

Authors :

Hilda J I de Jong, Jan Willem Cohen Tervaert, Siti R F Saldi, Rob J Vandebriel, Patrick C Souverein, Ronald H B Meyboom, Henk van Loveren, Olaf H Klungel

Study Type : Human Study

Additional Links

Diseases : [Lupus-Like Syndrome](#) : [CK\(10\)](#) : [AC\(1\)](#), [Statin-Induced Pathologies](#) : [CK\(270\)](#) : [AC\(43\)](#), [Systemic Lupus Erythematosus](#) : [CK\(322\)](#) : [AC\(51\)](#)

Problem Substances : [Statin Drugs](#) : [CK\(1135\)](#) : [AC\(96\)](#)

Topic: [Vitamin E Deficiency](#)

[Statin drugs may cause myopathy by lowering vitamin E levels. - GMI Summary](#)

Pubmed Data : Med Hypotheses. 2009 Nov 5. Epub 2009 Nov 5. PMID: [19896775](#)

Article Published Date : Nov 05, 2009

Authors : Francesco Galli, Luigi Iuliano

Study Type : Review

Additional Links

Diseases : [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#), [Vitamin E Deficiency : CK\(25\) : AC\(4\)](#)

Additional Keywords : [Statin-Vitamin E Deficiency : CK\(10\) : AC\(1\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Mineral Deficiencies: Selenium](#)

[Statin drugs induce a variety of potential adverse "peliotropic" effects. - GMI Summary](#)

Pubmed Data : Curr Drug Saf. 2009 Sep;4(3):209-28. Epub 2009 Sep 1. PMID: [19534648](#)

Article Published Date : Sep 01, 2009

Authors : Jerzy Bełtowski, Grazyna Wójcicka, Anna Jamroz-Wiśniewska

Study Type : Review

Additional Links

Diseases : [Chemically-Induced Liver Damage : CK\(386\) : AC\(145\)](#), [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [Mineral Deficiencies: Selenium : CK\(15\) : AC\(6\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Additional Keywords : [Drug-Nutrient Depletion : CK\(64\) : AC\(10\)](#), [Statin-Selenium Deficiency : CK\(4\) : AC\(4\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Statin-induced liver injury may result from the suppression of selenoprotein expression. - GMI Summary](#)

Pubmed Data : Mol Pharmacol. 2009 Jun;75(6):1421-9. Epub 2009 Mar 30. PMID: [19332511](#)

Article Published Date : Jun 01, 2009

Authors : Andrea Kromer, Bernd Moosmann

Study Type : In Vitro Study

Additional Links

Diseases : [Chemically-Induced Liver Damage : CK\(386\) : AC\(145\)](#), [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [Mineral Deficiencies: Selenium : CK\(15\) : AC\(6\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Additional Keywords : [Statin-Selenium Deficiency : CK\(4\) : AC\(4\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Statins and fenofibrates may exert their wide range of adverse side effects through interfering with selenoprotein expression. - GMI Summary](#)

Pubmed Data : Trends Cardiovasc Med. 2004 Oct;14(7):273-81. PMID: [15542379](#)

Article Published Date : Oct 01, 2004

Authors : Bernd Moosmann, Christian Behl

Study Type : Review

Additional Links

Diseases : [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Mineral Deficiencies: Selenium : CK\(15\) : AC\(6\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Additional Keywords : [Drug-Nutrient Depletion : CK\(64\) : AC\(10\)](#), [Statin-Selenium Deficiency : CK\(4\) : AC\(4\)](#)
Problem Substances : [Fenofibrates : CK\(66\) : AC\(11\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

[Statin drugs may induce selenium deficiency which may explain many of its enigmatic side effects.](#) - GMI Summary

Pubmed Data : Lancet. 2004 Mar 13;363(9412):892-4. PMID: [15031036](#)

Article Published Date : Mar 13, 2004

Authors : Bernd Moosmann, Christian Behl

Study Type : Review

Additional Links

Diseases : [Coronary Artery Disease : CK\(942\) : AC\(133\)](#), [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Mineral Deficiencies: Selenium : CK\(15\) : AC\(6\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Additional Keywords : [Statin-Selenium Deficiency : CK\(4\) : AC\(4\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Myotoxicity : CK\(44\) : AC\(11\)](#)

Topic: [Cholestasis](#)

[Statin drug induced myopathy is amplified in the rats administered cyclosporine A.](#) - GMI Summary

Pubmed Data : J Pharmacol Exp Ther. 1991 Jun;257(3):1225-35. PMID: [1904494](#)

Article Published Date : Jun 01, 1991

Authors : P F Smith, R S Eydelloth, S J Grossman, R J Stubbs, M S Schwartz, J I Germershausen, K P Vyas, P H Kari, J S MacDonald

Study Type : Animal Study

Additional Links

Diseases : [Cholestasis : CK\(95\) : AC\(21\)](#), [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [Myopathies : CK\(94\) : AC\(18\)](#), [Organ Transplantation : CK\(39\) : AC\(17\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Cyclosporins : CK\(2\) : AC\(1\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Cognitive Decline/Dysfunction](#)

[Statin drugs adversely effect memory likely through depletion of coenzyme q10 and interference with mitochondrial function in the brain.](#) - GMI Summary

Pubmed Data : Neurosci Lett. 2011 Jul 8. Epub 2011 Jul 8. PMID: [21763754](#)

Article Published Date : Jul 08, 2011

Authors : M Fux, J Levine, A Aviv, R H Belmaker

Study Type : Animal Study

Additional Links

Diseases : [Cognitive Decline/Dysfunction : CK\(350\) : AC\(71\)](#), [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Neurotoxic : CK\(689\) : AC\(87\)](#)

Topic: Endothelial Dysfunction

Atorvastatin increases myocardial indices of oxidative stress in a porcine model of hypercholesterolemia and chronic ischemia. - GMI Summary

Pubmed Data : J Card Surg. 2008 Jul-Aug;23(4):312-20. PMID: [18598320](#)

Article Published Date : Jul 01, 2008

Authors : Neel R Sodha, Munir Boodhwani, Basel Ramlawi, Richard T Clements, Shigetoshi Mieno, Jun Feng, Shu-Hua Xu, Cesario Bianchi, Frank W Sellke

Study Type : Animal Study

Additional Links

Diseases : [Endothelial Dysfunction : CK\(654\) : AC\(167\)](#), [High Cholesterol : CK\(865\) : AC\(192\)](#), [Oxidative Stress : CK\(1696\) : AC\(682\)](#)

Problem Substances : [Atorvastatin : CK\(150\) : AC\(19\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Oxidant : CK\(63\) : AC\(23\)](#)

Topic: Hypertension

Simvastatin decreases coenzyme q10 levels in the left ventricle of the heart and skeletal muscle. - GMI Summary

Pubmed Data : Physiol Res. 2007;56 Suppl 2:S49-54. Epub 2007 Sep 5. PMID: [17824807](#)

Article Published Date : Jan 01, 2007

Authors : J Kucharská, A Gvozdjáková, F Šimko

Study Type : Animal Study

Additional Links

Diseases : [Cardiovascular Diseases : CK\(3849\) : AC\(615\)](#), [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [Hypertension : CK\(1321\) : AC\(255\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Cardiotoxic : CK\(467\) : AC\(53\)](#), [Myotoxicity : CK\(44\) : AC\(11\)](#)

Topic: Organ Transplantation

Statin drug induced myopathy is amplified in the rats administered cyclosporine A. - GMI Summary

Pubmed Data : J Pharmacol Exp Ther. 1991 Jun;257(3):1225-35. PMID: [1904494](#)

Article Published Date : Jun 01, 1991

Authors : P F Smith, R S Eydelloth, S J Grossman, R J Stubbs, M S Schwartz, J I Gernershausen, K P Vyas, P H Kari, J S MacDonald

Study Type : Animal Study

Additional Links

Diseases : [Cholestasis : CK\(95\) : AC\(21\)](#), [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [Myopathies : CK\(94\) : AC\(18\)](#), [Organ Transplantation : CK\(39\) : AC\(17\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Cyclosporins : CK\(2\) : AC\(1\)](#), [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: Kidney Failure: Acute

[Acute renal failure with the combined use of rosuvastatin and fenofibrate has been reported.](#) -

GMI Summary

Pubmed Data : Ren Fail. 2010 Jun;32(5):633-5. PMID: [20486848](#)

Article Published Date : Jun 01, 2010

Authors : Hakan Buyukhatipoglu, Yusuf Sezen, Unal Guntekin, Idris Kirhan, Omer Faruk Dag

Study Type : Human: Case Report

Additional Links

Diseases : [Kidney Failure: Acute](#) : CK(31) : AC(7)

Problem Substances : [Fenofibrates](#) : CK(66) : AC(11), [Rosuvastatin](#) : CK(28) : AC(6), [Statin Drugs](#) : CK(1135) : AC(96)

Adverse Pharmacological Actions : [Renotoxic](#) : CK(105) : AC(24)

Topic: [Rhabdomyolysis: Fatal](#)

[Concomitant administration of simvastatin and danazol has been associated with fatal rhabdomyolysis.](#) - GMI Summary

Pubmed Data : Clin Ther. 2010 May;32(5):909-14. PMID: [20685498](#)

Article Published Date : May 01, 2010

Authors : Ivan Stankovic, Alja Vlahovic-Stipac, Biljana Putnikovic, Zorica Cvetkovic, Aleksandar N Neskovic

Study Type : Human: Case Report

Additional Links

Diseases : [Drug-Induced Toxicity](#) : CK(503) : AC(76), [Rhabdomyolysis](#) : CK(37) : AC(6), [Rhabdomyolysis: Fatal](#) : CK(3) : AC(1)

Problem Substances : [Danazol](#) : CK(4) : AC(2), [Simvastatin](#) : CK(197) : AC(24)

Topic: [Demyelinating Diseases](#)

[Lovastatin induces the formation of abnormal myelin-like membrane sheets in primary oligodendrocytes.](#) - GMI Summary

Pubmed Data : Glia. 2009 Mar;57(4):402-13. PMID: [18814266](#)

Article Published Date : Mar 01, 2009

Authors : Olaf Maier, Jenny De Jonge, Anita Nomden, Dick Hoekstra, Wia Baron

Study Type : In Vitro Study

Additional Links

Diseases : [Demyelinating Diseases](#) : CK(1179) : AC(240)

Problem Substances : [Lovastatin](#) : CK(56) : AC(9)

[The inhibition of cholesterol synthesis with simvastatin is detrimental to neuronal tissue.](#) - GMI Summary

Pubmed Data : Exp Neurol. 2009 Jan;215(1):41-7. Epub 2008 Sep 27. PMID: [18929563](#)

Article Published Date : Jan 01, 2009

Authors : Zhongmin Xiang, Steven A Reeves

Study Type : In Vitro Study

Additional Links

Diseases : [Demyelinating Diseases : CK\(1179\) : AC\(240\)](#)

Problem Substances : [Simvastatin : CK\(197\) : AC\(24\)](#)

Topic: [Hypoadrenalism](#)

[Simvastatin may inhibit adrenal function and/or responsiveness.](#) - GMI Summary

Pubmed Data : J Pharmacol Exp Ther. 2008 Oct;327(1):130-6. Epub 2008 Jul 1. PMID: [18593956](#)

Article Published Date : Oct 01, 2008

Authors : Taeko Matsuda, Yumiko Toyohira, Susumu Ueno, Masato Tsutsui, Nobuyuki Yanagihara

Study Type : In Vitro Study

Additional Links

Diseases : [Hypoadrenalism : CK\(38\) : AC\(6\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Simvastatin : CK\(197\) : AC\(24\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Topic: [Infant Mortality](#)

[Drugs targeting cholesterol synthesis are embryo lethal in mice and likely contribute to birth defects in humans.](#) - GMI Summary

Pubmed Data : Drug Metab Rev. 2011 Feb ;43(1):69-90. PMID: [21247357](#)

Article Published Date : Feb 01, 2011

Authors : Simon Horvat, Jim McWhir, Damjana Rozman

Study Type : Animal Study

Additional Links

Diseases : [Birth Defects : CK\(137\) : AC\(24\)](#), [Infant Mortality : CK\(194\) : AC\(17\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Teratogenic : CK\(266\) : AC\(48\)](#)

Topic: [Neurologic Disorders](#)

[Statin drugs may interfere with neurological function in the brain by inhibiting cholesterol biosynthesis and synaptic transmission.](#) - GMI Summary

Pubmed Data : J Neurochem. 2011 Sep 7. Epub 2011 Sep 7. PMID: [21899539](#)

Article Published Date : Sep 07, 2011

Authors : Tiffany Mailman, Manoj Hariharan, Barbara Karten

Study Type : Review

Additional Links

Diseases : [Drug-Induced Toxicity : CK\(503\) : AC\(76\)](#), [Neurologic Disorders : CK\(42\) : AC\(18\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Problem Substances : [Lovastatin : CK\(56\) : AC\(9\)](#), [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Neurotoxic : CK\(689\) : AC\(87\)](#)

Topic: [Neuropathies](#)

[Simvastatin delays nerve regeneration.](#) - GMI Summary

Pubmed Data : Folia Neuropathol. 2010;48(1):49-56. PMID: [20383811](#)

Article Published Date : Jan 01, 2010

Authors : Ergun Daglioglu, Mustafa Berker, Mehmet Demirci, Mürvet Tuncel, Erdem Karabulut, Aykut Tuncel

Study Type : Animal Study

Additional Links

Diseases : [Neuropathies : CK\(282\) : AC\(62\)](#)

Problem Substances : [Simvastatin : CK\(197\) : AC\(24\)](#)

Adverse Pharmacological Actions : [Neurotoxic : CK\(689\) : AC\(87\)](#)

Topic: [Heart Failure](#)

[The depletion of coq10 by statin drugs may be contributing to increasing rates of congestive heart failure.](#) - GMI Summary

Pubmed Data : Biofactors. 2003;18(1-4):101-11. PMID: [14695925](#)

Article Published Date : Jan 01, 2003

Authors : Peter H Langsjoen, Alena M Langsjoen

Study Type : Review

Additional Links

Diseases : [Drug-Induced Nutrient Depletion: Statin Drugs : CK\(66\) : AC\(17\)](#), [Heart Failure : CK\(452\) : AC\(85\)](#), [Statin-Induced Pathologies : CK\(270\) : AC\(43\)](#)

Additional Keywords : [Drug-Nutrient Depletion : CK\(64\) : AC\(10\)](#), [Statin-Coq10 Depletion : CK\(36\) : AC\(7\)](#)

Problem Substances : [Statin Drugs : CK\(1135\) : AC\(96\)](#)

Adverse Pharmacological Actions : [Cardiotoxic : CK\(467\) : AC\(53\)](#)

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