

## Q10 und L-Carnitinm, Mitochondrienfunktion

**Mitochondrien** <http://www.xerlebnishaft.de/mitochondrien.pdf>

Leitbefund: Lactazidose – Sonderform der metabolischen Azidose. <http://de.wikipedia.org/wiki/Laktazidose>  
Bestimmung der organischen Säuren im Urin und der Aminosäuren im Serum, evtl. Muskelbiopsie.  
ATP intrazellulär.

Main findings: lactic acidosis – as a special form of metabolic acidosis.  
[http://en.wikipedia.org/wiki/Lactic\\_acidosis](http://en.wikipedia.org/wiki/Lactic_acidosis). Determination of organic acids in urine and determination of serum amino acids, possibly muscle biopsy. Measurement of the intracellular ATP.

Arafa HM, Abd-Allah AR et al. (2003) Immunomodulatory effects of L-carnitine and q10 in mouse spleen exposed to low-frequency high-intensity magnetic field. *Toxicology* 187(2-3), 171-81 <http://www.ncbi.nlm.nih.gov/pubmed/12699906>

Feher J, Kovacs B, rt al. (2005) Improvement of visual functions and fundus alterations in early age-related macular degeneration treated with a combination of acetyl-L-carnitine, n-3 fatty acids, and coenzyme Q10. *Ophthalmologica* 219(3), 154-66  
<http://www.ncbi.nlm.nih.gov/pubmed/15947501>

Virmani A, Gaetani F, Binienda Z (2005) Effects of metabolic modifiers such as carnitines, coenzyme Q10, and PUFAs against different forms of neurotoxic insults: metabolic inhibitors, MPTP, and methamphetamine. *Ann N Y Acad Sci* 1053, 183-91  
<http://www.ncbi.nlm.nih.gov/pubmed/16179522>

DiMauro S, Hirano M, Schon EA (2006) Approaches to the treatment of mitochondrial diseases. *Muscle Nerve* 34(3), 265-83 <http://www.ncbi.nlm.nih.gov/pubmed/16810684>

DiMauro S, Mancuso M (2007) Mitochondrial diseases: therapeutic approaches. *Biosci Rep* 27(1-3), 125-37 <http://www.ncbi.nlm.nih.gov/pubmed/17486439>  
[http://www.orifund.org/doc/mt\\_disease\\_therapy.pdf](http://www.orifund.org/doc/mt_disease_therapy.pdf)

Miller JL, Lynn CH et al. (2011) Carnitine and coenzyme Q10 levels in individuals with Prader-Willi syndrome. *Am J Med Genet A* 155A(3), 569-73  
<http://www.ncbi.nlm.nih.gov/pubmed/21337696>

Golbidi S, Ebadi SA, Laher I (2011) Antioxidants in the treatment of diabetes. *Curr Diabetes Rev* 7(2), 106-25 <http://www.ncbi.nlm.nih.gov/pubmed/21294707>

DiNicolantonio JJ (2012) CoQ10 and L-carnitine for Statin Myalgia? *Expert Rev Cardiovasc Ther.* 10(10), 1329-1333.  
[http://www.medscape.com/viewarticle/776243?src=wnl\\_edit\\_medp\\_imed&spon=18](http://www.medscape.com/viewarticle/776243?src=wnl_edit_medp_imed&spon=18)

[Cordero MD](#), [Alcocer-Gómez E](#), [Culic O](#) et al. (2013) NLRP3 Inflammasome is activated in Fibromyalgia: the effect of Coenzyme Q10. *Antioxid Redox Signal.* [Epub ahead of print]  
<http://www.ncbi.nlm.nih.gov/pubmed/23886272>

[Shill DD](#), [Southern WM](#), [Willingham TB](#) et al. (2016) Mitochondria-specific antioxidant supplementation does not influence endurance exercise training-induced adaptations in circulating angiogenic cells, skeletal muscle oxidative capacity or maximal oxygen uptake. *The Journal of Physiology* 594(23) 7005-7014  
<https://physoc.onlinelibrary.wiley.com/doi/abs/10.1113/JP272491>

« In conclusion, endurance exercise training induced increases in multiple CAC types, and this adaptation is not modified by MitoQ supplementation. Furthermore, we demonstrate that a

**mitochondrial-targeted antioxidant does not influence skeletal muscle or whole-body aerobic adaptations to exercise training. »**

Rossmann MJ, Santos-Parker JR, Steward CAC et al. (2018) Chronic Supplementation With a Mitochondrial Antioxidant (MitoQ) Improves Vascular Function in Healthy Older Adults.

<https://doi.org/10.1161/HYPERTENSIONAHA.117.10787>

Hypertension.HYPERTENSIONAHA.117.10787

<http://hyper.ahajournals.org/content/early/2018/04/13/HYPERTENSIONAHA.117.10787>

**„These findings in humans extend earlier preclinical observations and suggest that MitoQ and other therapeutic strategies targeting mitochondrial reactive oxygen species may hold promise for treating age-related vascular dysfunction.“**

### **Medline search**

<http://www.unboundmedicine.com/medline?in=kw%257CAnaplasma%2520phagocytophilum&in=jn%257C&in=au%257C>

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