

# SUPPLEMENT FACT SHEET



## Acetylcarnitine; also called Acetyl-L-carnitine or ALCAR

<b>DESCRIPTION:</b>	<ul style="list-style-type: none"> <li>• <b>Acetylcarnitine</b> is a form of <b>carnitine</b>.</li> <li>• <b>Carnitine</b> (also known as <b>L-carnitine</b>) is an <b>amino acid derivative</b> synthesized from <b>lysine</b> and <b>methionine</b>. It is found in nearly all cells of the body. Produced in the liver and kidneys, it is stored in the skeletal muscles, heart, brain, and sperm.</li> <li>• <b>Carnitine, found in the muscles</b>, is involved in transferring <b>fatty acids</b> across <b>mitochondrial membranes</b>; fatty acids are burned in the mitochondria to produce energy.</li> <li>• The <b>acetyl</b> component of <b>acetylcarnitine</b> provides for the formation of the neurotransmitter <b>acetylcholine</b>; acetylcholine deficits in certain brain regions are thought to be associated with age-related dementias, including Alzheimer's disease.</li> <li>• <b>Acetylcarnitine</b> is often regarded as the preferred form for <b>carnitine</b> supplementation because it is <b>better absorbed</b> from the small intestine than <b>L-carnitine</b> and more efficiently crosses the <b>blood-brain barrier</b>.</li> </ul>
<b>FUNCTION:</b>	<ul style="list-style-type: none"> <li>• <b>Acetylcarnitine</b> may have a <b>triglyceride-lowering effect</b> for some people, as well as helping to <b>elevate HDL ("good") cholesterol</b> levels. It may have <b>cardioprotective</b> activity in addition to beneficially affecting <b>cardiac function</b>. It may also have <b>antioxidant</b> and <b>neuroprotective</b> properties.</li> <li>• There has been a great deal of attention to <b>carnitine</b> because it may help counter the <b>mitochondrial toxicity</b> experienced in HIV infection and all the successive problems which that may cause, including neuropathy, myopathy, bone marrow suppression (and resulting decreases in red and white blood cells and platelets), pancreatitis, fatty liver, lactic acidosis, and fat loss (lipoatrophy).</li> <li>• <b>Acetylcarnitine</b> has also been used as a "smart drug" to enhance <b>memory</b> and other <b>cognitive functions</b>.</li> </ul>
<b>SOURCES:</b>	<ul style="list-style-type: none"> <li>• The richest <b>dietary sources of carnitine</b> are: red meats, with lesser amounts found in fish, poultry, and milk products. Small amounts are also found in wheat and avocados.</li> </ul>
<b>DOSAGE:</b>	<ul style="list-style-type: none"> <li>• Recommended dosages range from 500mg ...1000mg ...2000mg per day.</li> </ul>
<b>DATA:</b>	<ul style="list-style-type: none"> <li>• A 2009 report on <b>acetylcarnitine</b> used in a pilot study of people with elevated cardiovascular disease risk found significant improvement in high blood pressure and glucose control among the study subjects.</li> <li>• Long-term studies of <b>acetylcarnitine</b> suggest that it can help damaged nerves recover from the toxicity of certain anti-HIV drugs such as d4T (Zerit, stavudine) and ddI (Videx EC, didanosine). In particular, <b>acetylcarnitine</b> has shown benefit in reducing diabetes risk and peripheral neuropathy symptoms in people with HIV.</li> <li>• <b>Acetylcarnitine</b> is a major component of Dr. Jon Kaiser's micronutrient supplementation package, which (as reported in a 2006 study) produced an increase in CD4 counts in people with HIV on HAART. NYBC subsequently developed a low-cost near equivalent to K-PAX®, which actually provides more <b>acetylcarnitine</b> than the original Jon Kaiser formula.</li> </ul>
<b>NYBC PRODUCTS:</b>	<ul style="list-style-type: none"> <li>• <b>Acetylcarnitine</b> (Montiff) Each bottle, 100 capsules. Each capsule, 500 mg of <b>N-acetyl-L-carnitine</b>, a form of the amino acid derivative, <i>carnitine</i>.</li> <li>• <b>Acetyl-L-Carnitine 500</b> (Jarrow/Biosint) Each bottle, 120 veggie capsules. Each capsule, 500 mg of acetyl-L-carnitine from Biosint, a trademark of Sigma-Tau Industries, S.p.A, in Rome, Italy. This Italian product has been used in many research studies.</li> </ul>
<b>PRODUCT NOTES:</b>	<ul style="list-style-type: none"> <li>• <b>Acetylcarnitine</b> supplements should be kept <b>refrigerated</b> to maintain potency.</li> </ul>