

## **Creatine - Understanding it**

Creatine is a naturally occurring substance found in meat and fish, and the usual intake is about 1 g/day. Your body also makes creatine in the liver and pancreas from amino acids, the building blocks of the body.

What is creatine for?

Creatine phosphate is stored in muscles, and available to add the extra phosphate to ADP, making ATP (Energy). Following physical activity the ATP breaks down and a phosphate molecule joins with the available Creatine in the muscle to recreate Creatine Phosphate.

Theoretically, supplementing with Creatine Monohydrate ( the chemical name of the supplement readily available for purchase) increases stores of creatine phosphate (CP) in muscle, providing additional sources of energy for muscle contraction. It can be a significant source of energy for short duration, all-out intensity efforts.

Studies have shown that muscle appears to have a limit to the amount of creatine it will store, so supplementing will be of little benefit to those who already have a high concentration of muscle creatine, or those who take creatine every day for long stretches of time.

There is a lot of controversy surrounding the use of this supplement. While it is not a banned substance, tampering with body chemistry always poses risks. In this case there is the potential for kidney and liver damage associated with long term use. Remember what your body doesn't need it gets rid of through the liver and kidneys. If your creatine stores are already significant, your investment in supplements is literally going down the toilet, and taxing the health of your vital organs.

For more information on Creatine and other performance enhancing substances, contact the Sports Medicine Council of Alberta, 1-800-672-7775, [www.cces.ca](http://www.cces.ca).

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