

# HEALTHY CHOICE



Lastest tips on the art of living well

## Colostrum & Sport



Athletes need to be able to recover quickly Whether you're a weekend warrior or a professional athlete. you want to perform at your best. Studies indicate that bovine colostrum supports many processes in the body and may offer a solution to natural support for healthy physical performance.

For all sports people strength, speed, endurance, motivation and determination are essential elements to success. Those performing at competition level regularly push the boundaries of their body and mind; they need to be able to recover quickly from intense training, physical injury and prevent illness.

A good diet along with key supplements play an important part in the overall health and therefore success of an athlete. Whatever your level of training, you need to ensure your basic nutrition provides adequate calories, vitamins, minerals, protein and water, 1 you may then consider specific supplements.

There are many sports supplements available that claim to enhance athletic performance in one way or another. Whichever supplements you choose, make sure you have a clear understanding about their mechanism of action - that is, how they actually help you; their safety; and whether they are on any prohibited substances lists.

#### Mechanism of action

Bovine colostrum is essentially a whole food. designed by nature for infant mammals which has then been harnessed by science and made available in the form of a convenient supplement. A good quality colostrum product will be processed to maintain the highest level of naturally occurring nutrients possible, keeping it true to its natural, whole food origin.

#### Colostrum contains:

- Macro & micro nutrients (protein, fat carbohydrates, vitamins and minerals)
- Growth factors
- Antibodies and other immune factors
- PRPs proline rich polypeptides 2

Being a whole food substance and not merely a singular extract, bovine colostrum supports a number of processes in the body and is of notable benefit to the health of our digestive tract and immune system.



Colostrum is suitable for everyone, including athletes to:

- Maintain the health and integrity of the digestive tract 34
- Support the body's natural defences against winter ills & chills 567
- Help naturally achieve ongoing good health 8
- Support natural healing and regeneration<sup>9</sup>

The ongoing use of anti-inflammatory medication common to many athletes 10 11 <sup>12</sup> and the natural changes caused by heavy exercise has been shown to damage the integrity of the gastro-intestinal lining.

The importance of a healthy gastro-intestinal



New Image

lining is an entire discussion in itself; the short version is that this is the area where most of our nutrients and medications are absorbed. It is also an important barrier to the entry of many pathogens (bacteria). The gut is also home to around 70% of all of the body's immune cells whose job it is to regulate a responsive, healthy immune reaction. Colostrum maintains the integrity of our gastro-intestinal tract.<sup>3 4</sup>

During intense exercise muscles suffer micro-tears as part of the muscle building process. More serious tears or strains can occur to the muscles, tendons and ligaments with overuse or incorrect training. Colostrum supports the natural, healthy repair of tissues.<sup>9</sup>

#### Safety

Colostrum is a natural whole food designed for mammals at their most vulnerable stage of life – infancy. There are no known interactions or contraindications associated with the use of colostrum. The common daily dose for most adults is 2g per day; there have been studies done on athletes using mega doses of 60g/day<sup>14 15</sup> (the amount an average person has in an entire month) which support that colostrum is non-toxic.

#### Drug Free Sport

Any athlete should be aware if any supplements they are taking are on the WADA prohibited list of substances.

### Bovine colostrum is NOT on the 2009 or 2011 WADA Prohibited list.

While colostrum is not on the prohibited list, IGF-1 (insulin-like growth factor) is. Colostrum naturally contains small amounts of IGF-1. So does milk. When colostrum and milk are taken orally, IGF-1 is broken down by gastric acid. Studies on athletes taking 60g daily showed NO increase in IGF-1 serum levels<sup>14 15</sup> and many other studies on athletes using colostrum at the Sydney 2000 Olympics resulted in no doping offences.

For a safe, natural supplement that can support healthy physical performance, as well as your everyday health, look no further than bovine colostrum.

- Natural Standard: Sports Medicine Database, Available: http://www. naturalstandard.com/databases/sports/all/a/
- Keech A. (2009) Peptide immunotherapy: Colostrum a physician's reference guide, AKS Publishing, USA
- PlayfordRJ et al. 'Co-administration of the health food supplement, bovine colostrum, reduces the acute non-steroidal antiinflammatory drug-induces increase in intestinal permeability'Clinical Science, 2001; 100:627-633
- Marchbank T, Davison G, Oakes G, Ghatei A, Patterson M, Moyer M, Playford R 'The nutraceutical bovine colostrum truncates the increase in gut permeability caused by heavy exercise in athletes', American Journal of Gastrointestinal and Liver Physiology, March 2011; 300(3):G477-G484
- Ragab SS, Afifi EA 'Bovine colostrum: its dietary supplementation role in improvement and modulation of human indices'
  Available: http://www.firstmilking.com/bovinecolostrumresearch.htm
- He F, Tuomola E, Arvilommi H & Salminen S 'Modulation of human humoral immune response through orraly administrated bovine colostrum', FEMS Immunology and Medical Microbiology, 2001; 31:93-96
- Davison G & Diment BC 'Bovine colostrum supplementation attenuates the decrease of salivary lysozyme and enhances the recovery of neutrophil function after prolonged exercise' British Journal of Nutrition, Volume 103, Pages 1425–1432
- Kelly G 'Bovine colostrums: a review of clinical uses' Alternative Medicine Review, 2003; 8(4):378-394

- Belford DA, Rayner TE, Cowin AJ, Cooter RD & Harries R 'Milk Growth Factors: Towards a Biologically Active Wound Dressing' Australasian Biotechnology, 1997 July/August; 7(4):223-228
- Warner D, Schnepf G, Barrett M, Dian D, Swigonski N 'Prevalence, attitudes, and behaviors related to the use of nonsteroidal anti-inflammatory drugs (NSAIDs) in student athletes', The Journal of Adolescent Health, Mar 2002; 30(3):150-3
- Alaranta A, Alaranta H, Helenius I 'Use of Prescription Drugs in Athletes', Sports Medicine, 2008; 38(6):449-63
- Warden S 'Prophylactic Misuse and Recommended Use of Non-steroidal Antiinflammatory Drugs by Athletes', British Journal of Sports Medicine, Aug 2009; 43(8):548-9
- Wyatt D. 'Holes in our gut: altered immunity & leaky gut syndrome'
- Kuipers H, Breda E, Verlaan G, Smeets R 'Effects of oral bovine colostrum supplementation on serum insulin-like growth factor-i levels', Nutrition, July 2002; 18(7):566-567 http://www.nutritionjml.com/ article/S0899-9007(02)00800-6/abstract
- Buckley J. Brinkworth G, Abbott M 'Effect of bovine colostrum on anaerobic exercise performance and plasma insulin-like growth factor I', Journal of Sports Sciences, 2003; 21:577-588 http://www.tandfonline.com/doi/ abs/10.1080/0264041031000101935

