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*Nutrients as nature provided for a choice full of Life*

**PEX COLOSTRUM  
SPORT PERFORMANCE and HEALTH**



**Oral bovine colostrums Research**

**Research conducted at the University of South Australia**

**The Effect of oral bovine colostrums supplementation on functional muscle power**

A study was conducted on (n 51 males between the ages of 18-35.

Methodology:

- Supplementation given over 8 weeks and test were conducted in weeks 0,4 and 8
- Venous blood samples taken
  - Pre exercise for plasma IGF-1 and serum CK and
  - Post exercise serum CK

Tests were:

- 20 metre sprint time
- Peak power output during 10 second maximal cycle test
- Best vertical jump displacement
- Peak torque for knee flexion/extension
- 20 minute recovery before test battery repeated

**Test Battery**

- 1 Repetition maximums

**Training**

- Resistance Training 3 times a week; alternate 85% and 35% 1RM
- Plyometrics 3 sessions a week
- One recovery day per week

Diet:

- A Diet Diary was kept of nutritional intake
- 60 g a day of either
  - bovine colostrums powder (n=26)
  - Whey Protein Powder (n=25)

Findings:

- Both groups maintained the same dietary intakes
- There was no change in IGF-1 in either group (n=58)

On the first vertical jump:

- There existed a similar increase in vertical jump in both groups by week 4
- There existed a similar increase in vertical jump in both groups by week 4 and a **Greater increase in Colostrum group by week 8**

On the second vertical jump:

- Colostrum group had improved more than placebo by week 4
- Colostrum group had improved more than Placebo by week 4 and week 8

The cycle Test:

- Absolute and relative peak power tended to increase more in colostrums group

## **Knee flexion**

- Tendency peak knee flexion torques for both legs to increase more in colostrums group

## **Serum CK**

- Trend for lesser increase in pre exercise CK in the colostrums group, especially during first 4 weeks

## **Conclusion**

- **Oral supplementation with bovine colostrum powder during training enhances adaptations in functional muscle power**

## **RESEARCH: RECOVERY - UNIVERSITY OF SOUTH AUSTRALIA**

Exercise and training results in muscle damage which, in turn, limits continued physical exertion and will reduce performance during subsequent exercise.

Bovine Colostrum supplementation has been proven to improve recovery from physical exercise. It has now also been proven to increase power output in power sports

- Thirty nine endurance athletes on a standardized training regime were supplemented in a double blinded, placebo controlled trial, with either 60g daily of whey protein concentrate (WPC), OR 60g of Bovine Colostrum over an eight week period.
- The athletes were tested for performance and recovery before supplementation began (week 0) and also at the end of supplementation (week 8).
- The test involved the athletes running to exhaustion in two incremental treadmill runs with a twenty minute recovery period between runs. The second run performance was used to test the recovery from the first run

**The results proved that colostrums significantly improves the ability to perform a second bout of maximal exercise following a short period; ie., “a second half effect.**

The mechanisms for the recovery is unknown but is probably due to the effects of one or more of the **bioactive proteins present in the powder. The results of the trial indicate that these effects may include an increase in muscle resistance to damage during exercise.**

The colostrums athletes displayed a strong trend over eight weeks to reduce the increase in serum creatin kinase concentration per unit of work done (16) while there was no such trend in the WPC group (94)

The results could also be partly due to a contribution to general health and well being with the colostrums group.

Before the trial code was broken, athletes completed a detailed questionnaire. After the trial code was broken, it was shown that the percentage of colostrums athletes reporting improvement in performance and well being tended to be higher than the WPC group.

What did you Like about the product?

<b>RESPONSE</b>	<b>Percent responses Colostrum</b>	<b>WPC</b>
IMPROVED PERFORMANCE	59	33
FEELING BETTER	35	13
MORE ENERGY	18	0

Colostrum athletes lost a significant amount (850g) of body fat over the course of the trial. Athletes on WPC also lost fat mass but the loss was not significant.(650g)

## **RESEARCH: - UNIVERSITY OF SOUTH AUSTRALIA**

Oral supplementation with bovine colostrums improves rowing performance in female rowers.

Bovine colostrums is secreted by cows during the first few days after the calving and is a rich source of bioactive components. Including growth factors.

The study employed a double blind placebo controlled, parallel, randomized design to determine the effect of supplementation with a low fat, low lactose, concentrated bovine colostrums protein powder on rowing performance in a group of elite female rowers.

South Australian Institute of Sport completed a 9 week training program whilst taking 60g of bovine colostrums a day or whey protein powder. All subjects consumed their normal diets and kept food diaries throughout the study period

The study indicated that oral supplementation with BC improves rowing performance in elite female rowers.

***Pex Colostrum      Pex Gold      Pex Platinum      Pex Keen 2 B Lean™      Pex Milo of Crotona***

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***"Life is full of choices – Let your choice be full of Life"***