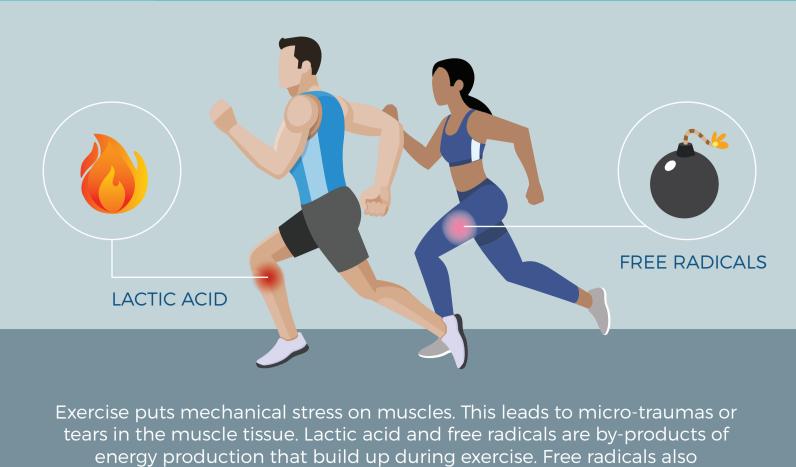
Support Muscle Recovery with

ASTAREAL® ASTAXANTHIN FOR MUSCLE HEALTH

Reduce muscle soreness after exercise

WHY DO WE FEEL **SORE AFTER EXERCISE?**

WHAT CAUSES MUSCLE DISCOMFORT?



contribute to additional discomfort or muscle damage after exercise. THE BODY REPAIRS 4 HRS after exercise DAMAGED TISSUE

that lasts up to 24 hours post-excercise.

White blood cells begin to migrate into muscles 4 hours after exercise to begin cleaning up damaged muscle tissue. The activity of white blood cells is accompanied by a second wave of free radical production



exercise-induced

starting 24 hours

post-exercise.

inflammation that can be felt as delayed onset muscle soreness (DOMS)



SORENESS IS A MOMENTUM KILLER!

Muscle soreness continues to build and peaks 48-72 hours after exercise, making it hard to recover and return to an exercise routine. It can take as long as 96 hours after exercise for muscle soreness to subside.

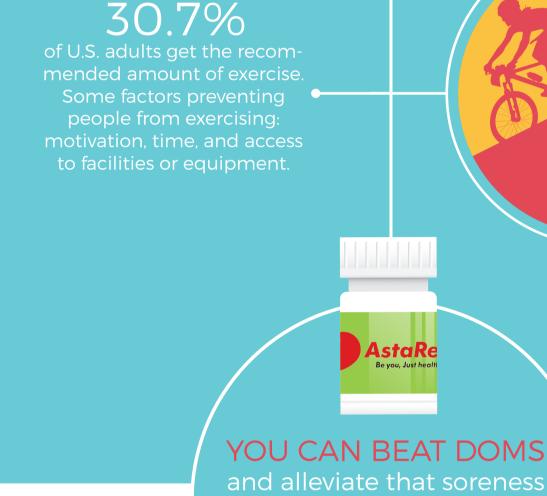
exercise routine, soreness often sets in before the results of the workout.



AstaRe

ASTAREAL® ASTAXANTHIN

Great for your muscles & health

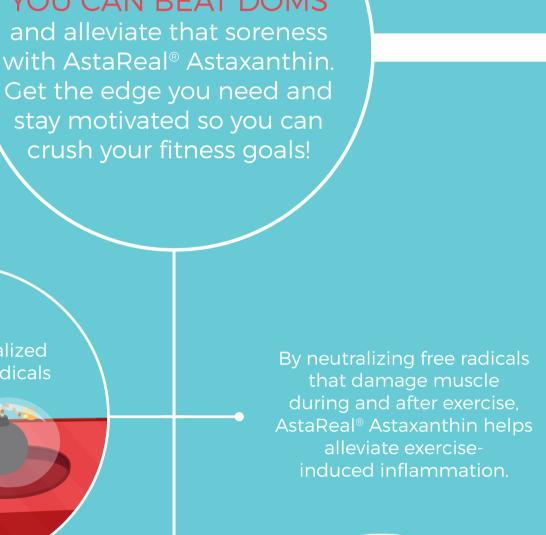


Neutralized

free radicals

This allows you to work out longer, harder and more frequently, without the soreness that's been slowing you down.

The next day or 2 after a workout, DOMS sets in and soreness kills motivation to continue your routine.





ASTAREAL®

GROUP

0%

NO INCREASE

in exercise-induced

inflammation

CONTROL

BIG INCREASE

in exercise-induced

1 HIGHER

mental & physical fatigue

CONTROL

GROUP

inflammation

GROUP

trol group experienced a 57% increase in CRP, which is an indicator of chronic inflammation caused by muscle damage. In contrast, the AstaReal® Astaxanthin group, supplementing at 4mg/day, had no increase in CRP. These results suggest that AstaReal® Astaxanthin promotes muscle protection against exercise-induced inflammation. **2**+2 = ?! **ASTAREAL®** CONTROL 2+2 = 4 GROUP GROUP

Healthy, but physically untrained volunteers were challenged with mental calculations and a physical cycling tasks designed to induce daily levels of

fatigue. The AstaReal® Astaxanthin group, supplementing at 12mg/day, reported reduced levels of mental, physical, and overall fatigue following both challenges,

whereas the control group did not report improvement in these parameters.

mental & physical fatique

ASTAREAL®

GROUP

Serum levels of the pro-inflammatory marker, C-reactive protein (CRP), was monitored in two groups of professional soccer players while training. The con-

LESS **MORE** muscle muscle damage damage Muscle damage markers, creatine kinase (CK) and aspartate aminotransferase (AST), were measured in two groups of professional soccer players while training. The AstaReal® Astaxanthin group, supplementing at 4mg/day, showed significantly less exercise-induced muscle damage after training and exercise compared to the control group.

DON'T LET MUSCLE SORENESS

SLOW YOU DOWN!

AstaReal® Astaxanthin can help you stick to your workout

routine, take on new challenges and help you feel less sore!

To learn more about natural astaxanthin and your health visit

AstaReal Be you, Just healthier www.astaxanthin.net