**Caffeine… is it good for your workouts?**

I’ve written a number of articles about caffeine and how it affects our body. I’m still a believer that most of the time caffeine gets a really bad rap, when in reality it does some great things for us. But like everything else in our lives, it’s all about moderation. I’m not sure if you remember an article that I wrote a long time ago about some research showing how stimulants, whether it is from light, heat, germs, caffeine, laser or X-ray, are showing some beneficial response to our general health .

I’m remembering an article in Denver Post, called “Caffeine gives athletes a leg up,” by Jack Cox. It’s been fairly common practice among some athletes and bodybuilders to drink a cup of coffee on their way to the gym for a workout boost. Caffeine has been used for years during workouts. Body builders seem to know that it gives a stimulus to the muscles which results in a stronger and larger muscle. Is this really what is happening?

It’s a hot topic, creating lots of discussion and questions. After decades of research, there is strong support suggesting that the effects of caffeine are more positive than the original negative information that was being assumed. Caffeine seems to hold off exhaustion factors associated with workouts. It seems to increase vigor, which is defined as physical energy and strength, strong feelings, enthusiasm and intensity. You know how they say “increase your health and vigor.” Research has also concluded that the effects of caffeine in prolonged, strenuous exercise have been positive in almost all cases.

Kirk J. Cureton, head of the Department of Exercise Science at the University of Georgia has done research in this field. In an early study, they found that competitive cyclists who received just 30 mg of caffeine an hour before starting a two-hour treadmill test could last 15 minutes longer before becoming exhausted than those who took the placebo. In a more recent study, also conducted on cyclists, found that non-caffeine users felt the effects more strongly than regular users of caffeine, especially when measured six hours after ingestion, meaning that they were able to last longer than 15 minutes before exhaustion set in.

Caffeine seems to have less impact on activities that are high intensity and/or shorter in duration. It seems to help in longer and lower intensity types of activities. The interesting thing is that research is finding that caffeine has little or no effect on muscular strength, to the contrary of how body builders believe.

Why and how is it helping in the endurance activities? It’s still unclear how it is physiologically helping in endurance. One common theory is that it spurs the oxidation of fat early in a workout, this sparing glycogen in the muscles for use later on. The most recent research seems to show that it works on the central nervous system, blocking the adenosine receptors that trigger a sense of fatigue, and thus tricking the brain into thinking the body is less fatigued than it really is. Therefore, if fatigue is not felt as quickly then you would be able to exercise for longer amounts of time which results in better conditioning overall.

All of the studies that were sited in this article used no more than 200 mg (2-3 cups of coffee) of caffeine when performing their research. They did report that higher dose of caffeine didn’t seem to elicit a greater response with exercise. Individuals who exercised with 400 mg or more of caffeine suffered from jitters and headaches.

A very interesting side-component that is being discovered is that caffeine doesn’t leave people dehydrated. There seems to be little difference in fluid retention between people drinking caffeinated beverages or plain water. There may be a temporary diuretic effect, but the body seems to handle that.

Two – four cups of caffeine seems to be numbers where benefits occur, too much is not good. Like everything else in life, it’s all about moderation.