

Why Flexibility Is really Important in High-Intensity Interval Training?

High-Intensity Interval Training (HIIT) is most often defined as four intervals of four minutes at 85–95% of max heart rate, with three-minute intervals at 60–70% of max heart rate. There are many types of HIIT.

It is increasingly popular today, although it is by no means a new technique. Olympic gold medalist Sebastian Coe used this type of training in the mid 1970s.



With High-Intensity Interval Training, the repair and recovery cycles go into hyper-drive. Bursts of maximum intensity are followed by a medium or low intensity recovery cycle. It burns twice the calories than continuous aerobic training and delivers greater improvements in VO2 max.

While HIIT is not for everyone, it has become popular in high-level sport. Studies suggest it is more effective than moderate-intensity continuous training at improving blood vessel function and markers of blood vessel health. It delivers greater results in half the time compared with low intensity, long duration workouts.

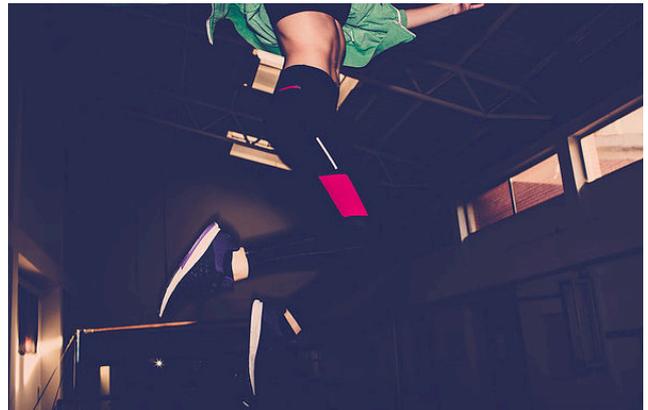
“I have pain behind the knee cap and every time I squat down it gets irritated, almost like it is grinding behind in the joint. Why does my knee hurt? What is happening?”

A High-Intensity Interval Training (HIIT) instructor came to Motion Dynamics with severe knee pain. Our postural analysis showed a large muscle imbalance in the right thigh and very poor knee flexion - movement that decreases the angle between two body parts.

Knee pain is one of the most common injuries we see in HIIT classes. The knee is the most complex joint in the body. This type of injury usually results from jumping on or off a box or doing squat jumps. The flexibility required for these types of exercises is significant.

We implemented a variety of our Stretch and Align manual mobility techniques to address the hip-lumbo-pelvic imbalances and – presto! - they could fully squat and jump pain free in 2 days. More proof that our unique system delivers results for injury rehabilitation.

However, at Motion Dynamics, we believe that injury prevention is the key to pain free exercise. This is why we incorporate these techniques in every session.



What are the causes of muscle sprains and strains there?

Sprains and strains in the knees are usually caused by poor alignment and muscle imbalances. You have tight hamstrings and tight quadriceps causing the patella to grind and become painful when bending the knee. If you don't remove the irritation quickly, wear and tear will ensue. The knee is the largest and weakest joint in the body. At Motion Dynamics we identify postural mis-alignment, muscle deficiencies, and the resulting muscle imbalances. Your knee pain usually starts at the hip and that is what we re-balance first.

Another type of flexibility

One aspect of High-Intensity Interval Training that piques our interest at Motion Dynamics is the flexibility levels of the arteries, veins and lymphatic systems from the anaerobic work outs.

This is the 'my heart is popping out of my chest' feeling. The heart is like a pump and it increases the elasticity of the smooth muscle tissues, making the arteries and blood vessels more pliable.

This is important as we age because cardio vascular disease is one of the main reasons people go to hospital in their 50's and 60's. **Better blood supply and lower blood pressure equals fewer visits to the doctor!**

What are the benefits of High-Intensity Interval Training?

You work out hard and you retain and even build muscle and body shape. High-Intensity Interval Training blasts excess subcutaneous fat layers.

Human growth hormone levels increase by 450% after one HIIT workout, spiking for up to 24 hours. This is where the slowing down of the aging process starts.

More people stay with HIIT due to varied workouts and the anywhere-anytime concept that uses body weight only or very light resistance.

The benefits are well documented: increased cardio vascular efficiency, increased metabolic rate, muscle mass increased, and fat levels are decreased. Glycogen levels in diabetics are lowered even after one session. The cells' powerhouse, the mitochondria - where all the fuel for the body and brain and energy come from - is increased not only in the size and density, but endurance efficiency too.



What are the effects of Motion Dynamics Treatment?

Motion Dynamics Stretch and Align combines the best parts of Active Isolated Stretching (AIS), Myofascial and Neuro-muscular release techniques in one system. We deliver results from the first treatment.

Our treatment unwinds the collagen fibers and decreases the pressure within the connective tissue matrix, leading to increased blood flow. This improves endurance and performance.

Stretch and Align rapidly reduces soft tissue tension, resistance, adhesive muscles, and misaligned or entangled connective tissue. There is more elasticity in the arterial systems, especially the aorta. Freshly oxygenated blood rushes in and you become a more highly tuned breathing machine.

A flexible musculo-skeletal system and a flexible cardiovascular system is the pathway to a longer, healthier and more enjoyable life. As one of our clients jokingly said: "When I die, I want to die a flexible man."