Walk brisk, save a disc!

The human spine is a complex structure composed of 33 vertebrae separated by intervertebral discs (IVDs). These discs act as protectors to absorb shock and allow free movement of the head and torso. Maintaining healthy IVDs is essential as it mitigates back pain; which is the number one cause of missing days of work and physical inactivity throughout most of the world.

A recent study conducted by researchers at Deakin University in Australia has debunked a myth that scientists and clinicians believed to be true up until its release. Despite knowing that high impact activities stimulate bone and muscle growth, it was assumed that the spine was excluded from these benefits. Exercise professionals believed that long distance running did more harm than good and caused overuse injuries to the back. The latest findings however, have shown that it can make the back stronger.

Animal studies were among the first to challenge this idea. Researchers in Sweden found that treadmill running had a positive impact on the IVD of mice. Unlike humans, mice run on 4 legs, therefore it was unclear if humans would experience the same benefits. The goal of the new study was to determine if exercise could lead to the same beneficial effects on the IVD in humans, and if so, is more always better?

79 adult men and women participated in the study. They were separated into three groups based on their exercise habits for the past 5 years: referent (0 miles/week), joggers (12-25 miles/week), and long distance (30+ miles/week). Participant disc health was assessed using an MRI that measures both size and hydration level of each disc. The greater the size and hydration level, the healthier the disc is.

Overall, both the joggers and long distance group had larger and more hydrated discs than the group who performed no exercise. In other words, contrary to popular belief, the people who ran or jog had healthier backs than those who did not.

The researchers wanted to determine the speed that a person needed to run to elicit the greatest benefits. Surprisingly, they found that running was unnecessary. The speed that creates the optimal force for disc health ranges from a fast walk to a slow jog.

This study does not show a cause and effect relationship between running, jogging and disc health, however it does show that individuals who have been engaging in those activities for over 5 years have healthier backs than sedentary people. It also goes to show that simply going for a brisk walk every day can help strengthen your spine and protect your back for the future.

Register for the BIDMC Walking Club Through Sunday, April 8th! See the BIDMC Portal for details.

References:
Push, Pull and Drag Your Fitness to a New Level!

Incorporating sled training into your workout can offer many benefits and produce impressive results in a very short time. It can be used to help develop strength, improve cardiovascular fitness, and can be a great tool in working toward fat loss. The sled is extremely versatile and joint-friendly, making it suitable for all fitness levels. The low-risk, high-reward nature of sled training makes it an excellent staple of your fitness program. Here are a few details:

**Less wear and tear on the body.**
People who might not be able to run, can obtain similar, if not better, results, by using the sled. You can add weight to your workouts, perform workouts more frequently, or train at a higher intensity without paying the price of muscle and joint soreness or injury. The sled can increase joint health and prevent injuries by enhancing the strength and stability of the entire body.

**Easy to use.**
The sled is easy to use and not as technical as running or using training equipment. This makes workouts suitable for all fitness levels. The sled can be used in numerous movement patterns including pushing, pulling, and running forwards, backwards, or laterally.

**A Great tool for losing body fat.**
Since the sled offers many exercise variations, your body’s metabolism will be challenged. This weighted cardio training allows you to utilize your entire body. Furthermore, total body exercise is associated with burning more calories versus isolating one muscle group.

**Improves cardiovascular fitness.**
Improvements in cardiovascular fitness can be obtained by performing repetitions that are longer in duration, or by performing many shorter pushes or pulls with very little rest between sets. The sled can also be used along with other exercises, as part of a conditioning circuit.

**Improves muscle strength and power.**
If used for strength training, sled workouts can also help you to develop muscle mass. You can increase your strength by adding more weight, so that it feels more difficult to push or pull the sled. This can also help you develop speed when performed as a high intensity workout for brief periods that last from a few seconds to two minutes.

**Progressions with sled training can be done in a variety of different ways by adding more weight, going at a faster speed, covering a greater distance, or increasing the time during which sets are performed. The way you progress depends on your fitness level and goals.**

Overall, sled training is versatile, safe and an excellent way to improve your health and athletic performance.

Reference: