

Importance of stretching extracts from the world's top institutes and experts.

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It's not enough to build muscle and achieve aerobic fitness. You need to think about flexibility, too.

You may think of stretching as something performed only by runners or gymnasts. But we all need to stretch in order to protect our mobility and independence. "A lot of people don't understand that stretching has to happen on a regular basis. It should be daily," says David Nolan, a physical therapist at Harvard-affiliated Massachusetts General Hospital.

Stretching keeps the muscles flexible, strong, and healthy, and we need that flexibility to maintain a range of motion in the joints. Without it, the muscles shorten and become tight. Then, when you call on the muscles for activity, they are weak and unable to extend all the way. That puts you at risk for joint pain, strains, and muscle damage.

For example, sitting in a chair all day results in tight hamstrings in the back of the thigh. That can make it harder to extend your leg or straighten your knee all the way, which inhibits walking. Likewise, when tight muscles are suddenly called on for a strenuous activity that stretches them, such as playing tennis, they may become damaged from suddenly being stretched. Injured muscles may not be strong enough to support the joints, which can lead to joint injury.

Regular stretching keeps muscles long, lean, and flexible, and this means that exertion "won't put too much force on the muscle itself," says Nolan. Healthy muscles also help a person with balance problems to avoid falls.

American council of exercise

Flexibility training is an essential, yet often overlooked health-related component of fitness. Numerous studies support the short- and long-term benefits of various types of stretching, including static stretching, dynamic stretching, and proprioceptive neuromuscular facilitation (PNF), just to name a few. Here are 10 reasons why you should be stretching on a regular basis.

Decreased stress- Chronic stress can produce a number of undesirable responses in the body, including increased feelings of anxiety, fatigue and tension. Regularly stretching has been shown to reduce mental tension and, when combined with mindful breathing techniques, may also help to decrease anxiety and depression.

Reduced pain and stiffness- Excessive muscular tension can increase discomfort throughout the body. However, studies have shown that regularly performing static stretching can help to decrease stiffness, reduce pain levels (especially in individuals with chronic neck or low-back pain), and may even reduce the frequency and severity of muscle cramps.

Improved health - Regularly performing stretching exercises, such as PNF stretching, static stretching, and stretches from mind-body disciplines such as yoga, can help to reduce blood pressure, heart rate and breathing rate, counteracting the body's physiological responses to stress and muscular tension.

Enhanced range of motion - Various types of stretching as well as other supportive self-care strategies, such as self-myofascial releasing using a foam roller, can help to enhance unrestricted movement of the major joints of the body, including key areas that are designed to be mobile, such as the hips and shoulders.

Improved function - As a result of poor posture, repetitive movement patterns, improper body mechanics, and spending long periods of time seated, muscles in the body can become chronically tense, tight and contracted, causing them to become less strong and supple. Regular stretching utilizing a variety of flexibility training techniques helps to improve overall function by ensuring that the body can more effectively respond to the stresses imposed by various types of movement and activity.

May reduce risk of injury - Although the evidence is far from definitive, there are some promising findings regarding the role that stretching may play in helping to reduce the risk for injury. Dynamic stretches are often used as part of a warm-up to help increase core body temperature and functionally prepare the body for the movements that are to come. As a result, stretching is often considered an important part of injury prevention, as cold muscles and tendons in the body have a greater likelihood of rupture, strain or sprain.

Enhanced performance - When included as part of a well-rounded fitness routine, regular flexibility training, which includes dynamic stretching, can help enhance agility, power, speed and muscular strength.

Improved blood flow and circulation- Regular flexibility training can help to improve blood flow and circulation, thereby allowing for the enhanced transportation of oxygen and nutrient-rich blood throughout the body.

Minimized wear and tear on joints - When muscles become chronically tight and tense, opposing muscles become weakened, producing unnecessary wear and tear on various joint and structures within the body. Regular stretching helps to ensure the muscles on each side of a joint maintain an equal degree of pull so that the joint is able to move freely and efficiently in all directions, allowing for optimal movement and less stress on the body.

Improved quality of life- Although there are physiological changes that occur as we grow older, regularly stretching and performing range of motion exercises can improve flexibility at any age, helping to increase longevity and enhance overall quality of life.

American academy of family physicians

Stretching is one of the best ways to keep your muscles healthy. Stretching regularly will strengthen your muscles and increase your flexibility. The more flexible you are, the better it is for your joints. Keeping muscles and joints in top condition helps with your day-to-day range of motion and can help guard against injury.

As beneficial as stretching is, there has been a shift in sports theory regarding how you should stretch and when. For years, experts recommended stretching before you played sports or before you exercised. However, recent research suggests that stretching before a workout does not decrease your chance of injury. Instead, it is more important to do a warmup before exercising. Do not confuse stretching for warming up. A good warmup will boost your heart rate. It will make your body warm all over because of the increased blood flow and oxygen to your muscles. Specifically, your warmup should make you break a light sweat and target the same muscles you'll use during your sport or activity. Save your stretching for post-game or post-workout. While stretching has long been associated with working out, stretching daily or a few times a week as its own activity can boost muscle and joint health. Adding it to your routine does provide a flexibility that decreases the risk of day-to-day injury. Plus, it helps reduce tension and can improve your posture.

Gyles Abbott of Fitbot Training, a personal trainer on Bidvine (2016 article)

Top 10 Reasons to Stretch After a Workout

- 1. Stiffness and Soreness - During a hard workout, muscles go through numerous contractions which leave them in a miss-shaped and shortened state, which is why you will feel stiffness and soreness if you don't try and rectify the state by stretching.**
- 2. Lactic Acid - Your body produces lactic acid which makes your muscles tired and sore, stretching helps to eliminate the lactic acid.**
- 3. Endorphins - Endorphins are released after a workout once your body starts to cool down, stretching helps slow the cooling process ensuring you feel energised after your workout.**
- 4. Blood Flow - Stretching helps the blood flow back into your muscles at a more regulated pace, allowing your heart rate to come back to normal, your muscles feed on oxygen and nutrients brought in by the blood**
- 5. Lower Back Pain - The most common complaint amongst my clients when they first come to me is the lower back area. Nine times out of ten stretching the hamstrings and hip flexors, muscles that are attached to the pelvis, will relieve that pain.**
- 6. General Posture - General posture is improved, people tend to stand up straighter particularly if you focus on stretching backs, shoulders and chests**
- 7. Tension and Anxiety - General tension and anxiety lead to tension in your muscles, whether that's stiff necks or tight shoulders. Releasing and stretching those muscles often leads to an overall feeling of stress relief.**
- 8. Flexibility - Increased flexibility, which will happen the more you stretch, will enable you to exercise more effectively.**
- 9. Toned Muscles - Stretching over time will give your muscles tone and your body will look more slender. You only need to look at the bodies of those that practice Yoga on a regular basis.**

10. Reduce the Risk of Injury - Last but by no means least you reduce the risk of injury as you will have an improved range of motion, which in turn decreases resistance on your muscles.

Static stretching is suitable for after exercise and each time you go into a stretch hold for 25 to 30 seconds, just enough time for the muscle to regain its shape. Foam rolling is a great addition to your stretching routine, especially if you have a part of your body that is particularly tight, it also increases circulation and helps to lower your heart rate. Think of stretching as a way of resetting and gaining equilibrium after putting your body through stress. Rather than seeing it as an optional part of your workout think of stretching as part of your session, you will be maximising the benefits off all the hard work you've put in.