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Sowkhya

Magazine™



Hello, and welcome to yet another episode of Sowkhya Magazine™. I hope you are well and taking care of your health!

This edition is dedicated entirely to **exercise** - the benefits, the types and some strategies. According to Webster's dictionary, exercise means 'activity requiring physical and mental exertion, especially when performed to maintain or develop fitness'. It is also 'something practiced to improve one's skill'. Humans have been exercising in some form or another for centuries. Back in the Neanderthal years, exercise was primarily a part of the hunting and gathering culture.

When we exercise, the musculoskeletal system is put into action, resulting in body movements. These movements may be generalised or localised to a particular part of the body. The heart rate increases, the blood pressure rises and our breathing rate increases as well. This causes an increase in circulation to all the vital organs, including the skin (leading to sweating), which helps maintain a normal body temperature. Physical exercise is essential to keep our body fit and to build our musculoskeletal system, thus increasing muscle mass and bone density.

Exercises can be aerobic (like walking skipping, cycling, swimming etc.) which increases the heart rate and blood pressure, and non-aerobic exercises such as weight lifting, which increases the blood pressure but not necessarily the heart rate. Weight lifting is not recommended if you are concerned about your cardiovascular fitness. In a nutshell, exercise helps keep our body and mind in peak condition, and promotes a long and healthy life.

This month's Sowkhya Magazine is full of information on exercise, and as always we have included some light bites and interesting information that will help you lead a healthy life.

To your good health.... my best wishes!

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Exercise - What Should We Be Doing?

For a number of years now, doctors have been advising their patients to get plenty of exercise regularly. The reason for this is clear - exercise has a large number of benefits, and has been proven to reduce the chances of developing diabetes, heart disease, stroke and high blood pressure, to name but a few (see our later article on the benefits of exercise, page 3).

But how much exercise is enough? Is over-exercising bad? Well, there is no clear guideline that states how much exercise is essential, but the American Heart Association does recommend a total of 150 minutes of exercise per week, that amounts to 30 minutes of exercise 5 days a week. The exercise must be of moderate intensity, and not just an evening stroll in the park chatting with friends. This exercise must be a dedicated routine, and does not include regular household work or a busy job, unless the job involves walking or running for hours on end.

The duration of exercise is variable though, and depends on the build of the individual. Slim individuals who are wishing to maintain their weight should follow the above, but those who are obese looking to lose weight need to do a lot more than that. In fact, some people may need to reach a high level of exercise amounting to 90 minutes of exercise per day, not only to lose weight but to also maintain it once they have lost it.

Recent studies in Asian Indians have shown that a total of 60 minutes of physical activity must be performed every day to prevent type 2 diabetes and high blood pressure. This should include 30 minutes of moderate intensity aerobic exercise (such as brisk walking, running, swimming etc.), along with 15 minutes of office related work and 15 minutes of muscle strengthening exercises (like pull ups, push ups etc.).

Of course, it is difficult for elderly individuals to get this amount of exercise daily. In essence, they must try and get as much as they can, and as much as their body will allow them. Exercise is never bad, unless your doctor tells you not to!

Stay on your feet and stay active. Exercise helps - there is no doubt about it. Exercise regularly for a fit and healthy life!

High Intensity Vs. Low Intensity Exercises

There is no doubt that exercise can help maintain a healthy body and healthy mind. Broadly classified, exercises are of 2 different kinds in the scientific world - low intensity exercises and high intensity exercises.



The current American Heart Association recommends moderate intensity exercise to be performed at least 5 times per week to keep the heart healthy and the blood flowing. But what defines intensity? Well, low intensity exercises include a leisurely walk, a slow free style swim or a slow bike ride at the gym or in the park. High intensity exercise on the other hand includes running, timed swimming and aerobics. Low intensity exercises typically leave the individual feeling good but not too tired, while high intensity exercises leave the individual exhausted and on a 'high' due to endorphin release.

If you are looking to lose weight, then low intensity exercises are not the thing for you. Studies have shown that high intensity exercises are more effective at reducing body fat and overall body weight. In particular, it can help burn fat around the abdomen and even around the organs within the abdomen. More recently, 'interval training', sometimes called 'fartleks' have been shown in studies to burn fat quickly and more effectively. Typically, this form of exercise involves a baseline of low to moderate intensity exercise, followed by a burst of high intensity exercise. This cycle is repeated a number of times till exhaustion.

So which one should you do? Well, before you embark on any form of exercise, make sure you visit your doctor to ensure it is safe for you to do the exercise you wish. An exercise treadmill test may be beneficial. Try not to start off with high intensity exercises - this can cause muscle aches and joint pains (a condition sometimes called 'Weekend Warrior Syndrome'). This can ruin any chances of you working out again for a few days at least. Start gently and ideally with supervision. Build up over a period of weeks to months to your desired level. Keep your dietary intake low and avoid unhealthy foods. Burn more calories than you consume and you will find that you will strip that body fat in no time and lose weight effectively!

Get Off Your Couch! Here's Why You Should Exercising Today.



For a number of years now, doctors have been recommending regular exercise as a part of a healthy lifestyle to their patients. While a lot of patients take this on board and follow the recommendations to a T, many just try to diet and lose weight without exercising.

There is a common misconception amongst the general public that regular exercise only helps keep the heart healthy and reduces body fat. But it is a lot more than just that. From cardiovascular risk factor reduction to maintaining a healthy vital system and a good memory, the benefits of exercise encompass a number of different aspects of one's health. In this article, we shall explore the overall benefits of exercise on the entire body, and why we feel you stop procrastinating and start a good work out today.

It does not matter how old you are, exercise has benefits ranging from childhood all the way till we are 65 years and older. A plethora of scientific evidence exists that has shown that exercise increases blood flow to various organs and vital structures in the body, and can reduce the chances of developing heart disease, cancer, stroke and diabetes by up to half! Not just that, it can also reduce the chances of early death by nearly 30%. Many believe that exercise is the magic cure that we have been searching for, but has been right in front of us all this time.

So what are the benefits?

1. Cardiovascular benefits

Probably the most important amongst them all. Regular physical exercise reduces the chance of developing a heart attack and stroke by over 35%. As mentioned previously, it can reduce the risk of early death by 30%. With respect to cardiovascular risk factors, exercise reduces the chances of developing type 2 diabetes by over 50%.

2. Cancer reduction

Exercise has been shown to reduce the chances of developing different forms of cancer. Breast cancer incidence is reduced by 20% while that of colon cancer is reduced by 50%.

3. Neurological benefits

Exercise reduces the incidence of dementia and depression by 30%. Moderate to high intensity exercise can cause what is popularly described as a 'high' - a feeling of elation that makes one feel good. It is this property of exercise that can make it addicting once you do it regularly.

4. Benefits in Elderly patients

Regular exercise over a number of years can improve our balance, and reduce the incidence of falls as we age. The reduction is nearly 30%. In addition, the chances of developing osteoarthritis can reduce by over 80%, meaning lesser aches and pains as we get older. Finally, exercise can help reduce the chances of developing a hip fracture from a fall by over 65%, which is undoubtedly significant and rather remarkable.

5. Maintains healthy skin

Exercise can help maintain excellent blood flow to the skin, and can keep it healthy and glowing. It prevents premature skin aging, keeping skin softer and wrinkle free for longer.

6. Weight control

Obesity brings with it a large number of negative health effects, including heart disease, arthritis, skin problems, diabetes and high blood pressure, to name just a few. Regular exercise of moderate intensity can help maintain a healthy body weight, stripping off any excess body fat and building lean muscle. This promotes blood flow to various vital structures, bringing with it benefits previously described on various vital systems.

7. Increase energy levels

One of the most common complaints that we get from our patients is the lack of energy to do anything. Tiredness and fatigue seem to take over their lives, making them lethargic and resulting in a lack of interest in performing exercise. This is a vicious cycle. Tiredness means no exercise; no exercise means low energy levels; low energy levels mean more tiredness.

8. Helps you sleep better

Sleep patterns can be altered due to a number of reasons. If you are struggling to fall asleep every night, then exercise is the answer, not a sleeping pill. Exercising in the evening can cause sufficient amount of fatigue to help you fall asleep at night. However, do not exercise too late in the evening, as the burst in energy you experience can keep you awake for a while!! Early morning or early in the evening is recommended.

Exercise has a number of benefits, as you can see above. It can be as simple as getting off the couch and hitting the gym, or going to the park for a brisk walk. There is not a shadow of a doubt - exercise has a ton of advantages that can keep you healthy and prolong your life. So don't you think it is time you started today?!

***Stats from NHS UK

Gynaecomastia - Breast Tissue In Men?

It is a well know fact that men tend to be flat chested and do not possess a large amount of breast tissue. However, there are certain medical conditions in which men develop breasts. This condition is called gynaecomastia.

Gynaecomastia is a clinical condition where breast tissue that is present under the nipple grows to a point where it is evident that the individual has breasts. It is often seen in teenage boys and in certain older men.

What causes it?

Well, there are a number of different causes of this condition. The primary cause is believed to be an imbalance in the quantities of sex hormones testosterone and estrogen in the body. Testosterone is responsible for preventing the formation of breast tissue, and helps in muscle development. However, estrogen is responsible for the development of breast tissue. The tissue is not body fat, so any attempt to lose weight is unlikely to reduce the amount of breast tissue.

Breast tissue is also seen in newborn babies due to the transfer of estrogen from the mother to the baby through the placenta. As men get older, the amount of testosterone in their body reduces, and the presence of a higher amount of body fat increases estrogen levels. High alcohol intake and the use of certain medication such as Spironolactone can cause gynaecomastia. Finally, certain rare medical syndromes have also been shown to cause the development of breast tissue in men.

How is it treated?

In cases where the breast tissue is painful and unsightly, surgery may be performed to remove the excess tissue. Hormone therapy can also be beneficial. Culprit medication causing gynaecomastia will likely be discontinued. We recommend visiting your physician for further advice if you feel that you have this condition.



Exercise - Some Interesting Facts.

It may be hard to believe, but exercise does in fact have a history! In particular, the benefits of exercise have been well recognised for a number of years, dating back to as early as 65 BC when Marcus Cicero, a Roman philosopher and politician stated "it is exercise alone that supports the spirits, and keeps the mind in vigour". Scientific evidence of this fact emerged only in the late 1940's, when Jerry Morris, a Scottish epidemiologist, noted that individuals of different social classes and different occupations had different chances of developing heart attacks.

We have all heard of the 'marathon' - a gruelling race of 26 miles and 385 yards (42.195 km) which is now popular all over the world. Training for a marathon requires hard work and dedication, and it is not for everyone. Its history is rather interesting though. The word 'marathon' originates from the battle of Marathon, where the Greek messenger Pheidippides ran non-stop all the way from the battlefield to Athens to announce the victory over the Persians. As soon as he burst into the room, he shouted '*nenikekamen*' (meaning "we have won"), before he collapsed and died. The distance he ran is what is now the distance in the marathon.

You may have noticed that most athletic long distance events are won by Kenyans. But what makes them so fast and so good at running? A special diet? Not really. It's likely to be their genetic make-up, and the fact that all they do is run. They run to school, run to the shop and even run to work. Studies published have shown that Kenyan children average around 7.5 km of walking/running a day! That is a lot more than any of us achieve in India. In fact, this aspect of their fitness and routine is sometimes demonstrated in their stride. Take Mr. Haile Gebrselassie for example. He is well recognised as the world's greatest long distance runner, and is known well for his running style. While running, he holds his left arm up in a way like he were carrying his school books, and this stems from him running 10 km each way to and from school every day as a child!

Finally, our fitness emerges from our ancestors, who were hunter-gatherers. Requirements for food made it necessary to run after and hunt for prey, and over millions of years has defined the way we live and our need for exercise.



Cardiac Care Month Continues!

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Tests Include:

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Errata - Our February edition had an error in the botox article. Botox is derived from *Clostridium botulinum*, not *difficile* and can result in relaxation of the muscles, not increase tone. We sincerely apologise for this oversight!