Musculoskeletal System

Your musculoskeletal system refers to the muscles and skeleton (bones) of your body but also includes all your joints, cartilage, ligaments, tendons, and bursae as well.

One of the main functions of your musculoskeletal system is to provide stability and movement of your body.

The bones of your body have a few functions:

- They provide the structural support that you require to be able to stand and move as well as protecting internal organs.
- Your bones store most of the calcium in your body and the bone marrow inside your bones produce red and white blood cells as well as other blood components.

Additionally, the bones in your body run on a piezo-electrical system. This means that your bones can carry an electric charge into the collagen molecules and transport electrical signals to your brain, and into the neurons, which is one of the main features of your central nervous system.

Also, thyroid hormones primarily run through the skin and muscle (not the blood) to your brain, and then help regulate brain function, heart, weight management, reproduction, sugar regulation, temperature and immunity.

However, if the musculoskeletal system is affected in any way, this can disrupt the functioning of your piezoelectrical system.

The muscles of your musculoskeletal system include skeletal and smooth.

1. Skeletal muscles are attached to your bones and your brain has voluntary control over them that causes contraction, allowing movement of your body.
2. Smooth muscles are located throughout your digestive tract helping food and eventual faeces through your digestive tract. They are also around your arteries and veins and when contracted help with blood flow throughout your body. You are not able to consciously contract smooth muscle.

The joints of your body are between two or more bones can contain cartilage and bursae. Most of your joints allow for movement of your body, however, the joints between your skull bones are fused together and do not move.

The tendons and ligaments of your body also aid in movement of your body.

As there are a wide range of functions of your musculoskeletal system, it is important that care is taken in looking after this system of your body.

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Musculoskeletal System

There are many conditions and diseases that can arise in relation to your musculoskeletal system. These can include osteoporosis, osteopenia, arthritis, osteoarthritis, bone fractures, bursitis, tendonitis, sprains and strains. These conditions often cause pain, inflammation, weakness and fatigue for an individual.

The table below includes the most important tips as to how you can look after and improve the health of your musculoskeletal system.

Eat a healthy, balanced diet

Eating a well-rounded diet that includes healthy sources of protein, carbohydrates and fat is important. This will ensure you are gaining the required nutrients for your musculoskeletal system. Calcium and vitamin D are specifically important for bone health. Vitamin D is required for the absorption of calcium. Calcium is then required for increasing and maintaining the strength of your bones.

Exercise for at least 30 minutes per day

Your muscles benefit from regular exercise as they respond by becoming stronger and may become bigger depending on the combination of exercise and diet. The force that exercise generates against your skeletal system further benefits your bones as they also become stronger which can reduce the chance of fractures and bone loss.

Drink plenty of water

Water is required for overall hydration of your body and helps to transport the nutrients and oxygen in your body to your muscles and bones where it is needed. Additionally, water helps to keep your joints lubricated and cushioned which supports mobility.

Make sure you are getting adequate sleep

Sleep is required for your body to regenerate by repairing muscles and bones that are impacted throughout the day.

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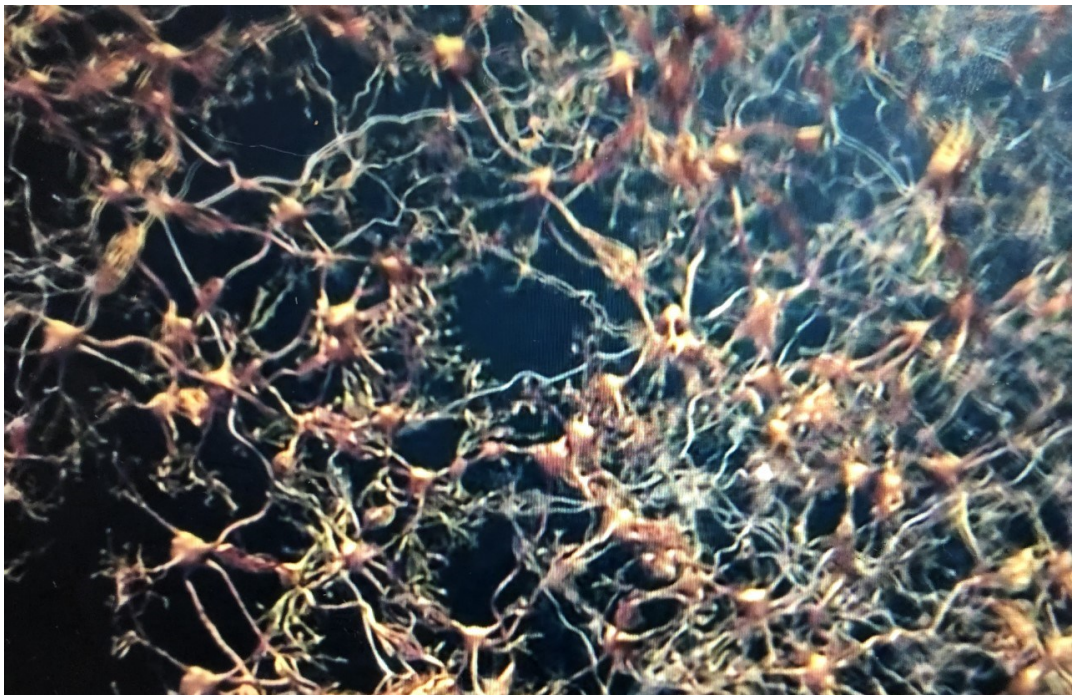
Musculoskeletal System

Piezoelectric Bone Connective Tissue

Neurons



We recommend you get your epigenetics analysed regularly to prevent musculoskeletal and wellbeing challenges.