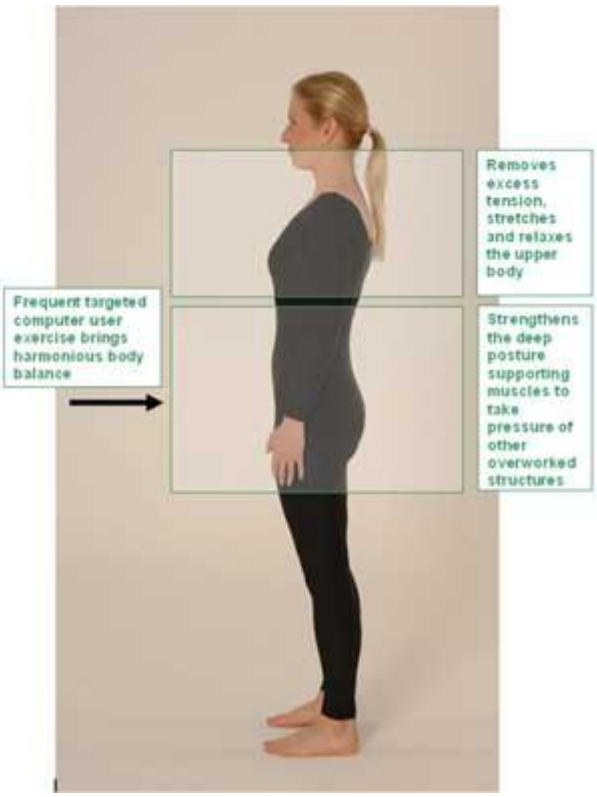
Posture.

Having good posture not only helps keep you injury-free, but also makes you look slimmer and gives you more energy! Posture is the relative position of all our body parts. Each joint in our bodies has an optimal position and range of motion. In this position our joints are exposed to the least wear and tear and the most efficient use of energy.



Conversely when the body is out of alignment (poor posture) wear and tear and the cost in terms of energy are increased – not only to maintain our posture, but to make every move, therefore we are more likely to incur injury. This is why so many people experience musculoskeletal pain – due to chronic poor posture.

<u>When do we start developing our posture?</u>

Our posture begins to develop before we are even born. It is therefore paramount that expectant mothers look after their spinal health and remain active, allowing their babies core muscles to develop and providing optimal space for foetal development. Chiropractic can help to reduce tensions around the uterus that may cause intra-uterine constraint.

Babies are born with a set of in built primitive reflexes; these help them as they pass through the birth canal. As we grow our postural reflexes develop, forming the framework within which all our systems operate effectively. The transition from primitive to postural does not happen at a set time, but is gradual, often with both reflexes existing together. The postural reflexes help to shape our spinal health, posture, movement and stability (1). When laying on their fronts, by 6 weeks of age babies should be able to lift their head in line with their body

and by 12 weeks maintain in there for several minutes; this helps shape the curvature of the neck and determines the development of the muscles that support the head (1).

At approximately 16 weeks we begin to use our arms to push out chest off the floor, eventually raising ourselves up onto our knees and rolling over (emerges at about 6 months) (1), this helps to create the curve in the lower back and again improve muscular strength. Crawling is paramount as it helps to develop an even pattern of movement across the pelvis and again improves core strength, providing support for the low back. These early stages are very important and if a child misses these problems can develop in the future.

Children tend to use their bodies functionally, therefore do not often feel musculoskeletal pain, however once we become a teenager we become more self aware and our posture often suffers. Teenage girls are notorious for standing with rounded shoulders to hide their developing breasts and if they are tall may stoop to become as short as their peers. Carrying heavy bags, often on only one shoulder, and spending long periods of time at the computer or desk also has an effect on posture in the long-term.

What determines our posture?

The relative length- tension relationship between reciprocal muscles is largely responsible for our posture. Joints have 2 sets of muscles on opposite sides, if one side is long and weak, whilst the other short and tight (may also be weak), this will affect the position of the joint and its range of motion.

For example, if your hip flexors are short and tight and your gluteals (bottom) weak then your pelvis will be pulled forward, resulting in an increased lumbar lordosis (curve) and if one hip flexor is tighter than the other also torsion through the pelvis. The hip joint and therefore the knee and ankle no longer sit in their optimal position, thus range of motion of the leg is restricted. Without correction this can lead to injury and pain.

Poor posture not only affects the musculoskeletal system, but can have a knock-on-effect on the rest of our body. If you slouch, your ribcage will drop forwards, restricting the diaphragm thus effecting breathing. It also brings your stomach and oesophagus in closer proximity, so increases the chance of indigestion, reflux. It restricts blood flow to the organs including the uterus, so can result in painful periods and the bowel so impaired digestion, thus symptoms of IBS.

Circulation and nerve signalling from the brain can also become compressed, which can result in headaches, migraines and numbness in the legs and arms.

How can I help myself?

We can all do a certain amount of self assessment just by looking in the mirror. Use the guide pictures to help you. If you just think about standing and sitting tall you are already halfway there to good posture. The more you remind yourself the easier it becomes as you begin to form a new habit!

Stretches and strengthening exercises can help to improve posture; however the specific ones

depend on your postural weaknesses. Most people do however benefit from doing a head to toe stretching programme that helps to get the entire body moving, a good starting point is the Straighten Up UK (SUUK) exercises developed by the British Chiropractic Association, go to www.chiropractic-uk.co.uk to view the free podcast.

Can exercise make my posture worse?

Some exercises can, yes! Although many people are told their poor posture is a result of poor abdominal strength, doing repeated sit-ups actually strengthens the exact muscles that cause you to slouch! The deep abdominal muscles and pelvic floor muscles are what you need to work on, however when muscles have been so underused for years it can be quite difficult to wake them up again! The most important exercise is improving your posture when sitting and standing; once you can do this I recommend exercises such as Pilates and Yoga, which focus on the core stabilisers, and any other exercise which challenges your balance – free weights and stability ball exercises. Always discuss with a Fitness Professional, or someone with the appropriate knowledge.

Will I achieve perfect posture?

More often than not, poor posture has developed over years; joint range of motion is markedly reduced. Joint mobility exercises, stretching and strengthening can help; however often work best in conjunction with specific treatment, such as Chiropractic, Osteopathy or Physiotherapy. Perfect posture can not always be achieved, as one needs to be realistic with respect to joint changes (wear and tear) that have already occurred, however improvements can always be made.

***References**:*

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