 In the fitness industry, posture has become a priority in recent years. Good posture can hugely improve your appearance and often makes you look slimmer. However, the ramifications of poor alignment and the importance and methods of correcting posture are often misunderstood. Let?s start with some of the basics. There are many definitions of posture. Two of the best are these: ?Posture Is the position from which all movement begins and ends? (Paul Chek); and ?The position from which the musculoskeletal system functions most efficiently (Moshe Feldenkrais). So that?s what we mean by posture.

Further to that, when assessing someone's posture there are two main categories: static and dynamic. Fitness guru Paul Chek defines static posture as ?the position of the body at rest, sitting, standing or lying?. In general, if you have poor posture before you move, you are more likely to have poor posture whilst moving. Chek defines dynamic posture as ?the ability to maintain an optimal instantaneous axis of rotation in any combination of movement planes at any time in space?. As a simple analogy, you can think of your spine as an axis of rotation (like a crankshaft) and your arms or legs as a means by which motion at the axis is expressed (like the crank itself). If your spinal axis is faulty and expresses the exaggerated curvatures that go hand in hand with poor posture, your capacity to rotate efficiently will be significantly reduced. Think how this could affect your swing in golf for example ? if your spinal axis is well aligned, you are far more efficient and are likely to move and perform to your full potential.

Optimal posture is maintained when muscles surrounding a joint are in balance. Good muscle balance simply means that the muscles are at their optimal or normal length and tension. A muscle imbalance occurs when a muscle on one side of a joint becomes tight whilst its opposing muscle (antagonist) is long and potentially weak. This can happen for any number of reasons, but usually muscles get tight and shorten as a result of over-activation due to overuse. For example, sitting at a desk with poor posture for a number of years can cause a shortening of certain muscles and a lengthening of others. This can cause a joint to lose its optimal axis of rotation, leading to excessive wear and tear on the joint and its surrounding tissues and consequently increased likelihood of injury during sport. The body is like a bicycle wheel. The spokes are like the core muscles and the rim is the spine. Imbalances in the muscles around the spine lead to abnormal stress on the spine. If the wheel is out of alignment, you need to tighten the loose spokes and

loosen the tight ones. The same is true with the body. You need to tighten (strengthen) the loose muscles and loosen (stretch) the tight muscles.

The gravitational pull that is exerted on the body acts through the body in a straight line towards the Earth's centre. In a standing position neutral alignment occurs when landmarks such as the ankles, knees, hips, shoulders and ears are in line with the pull of gravity. The body also requires balance from front to back and side to side, allowing it to maintain its position against gravity with minimal effort. The more the body is out of alignment, the more energy it uses to resist the gravitational pull. For most athletes, poor posture could not only cause injury, but also waste vital energy and could make the difference between winning and losing. In neutral alignment, the pelvis is in a neutral position. In this position, if the pelvis were a bowl of water, no water would spill out. With an anterior pelvic tilt the water would pour out the front, while a posterior pelvic tilt would cause the water to pour out the back. Both positions cause muscle imbalance and misalignment of the spine. Poor postural control and alignment affects both your quality of movement and the safety and effectiveness of any exercise. Prior to beginning a 'Base Conditioning' phase of any exercise programme, posture must be evaluated and corrective measures taken as required to restore optimal alignment (particularly of the spine). In conclusion, muscle imbalances cause poor static and/or dynamic posture which in turn causes further muscle imbalance, non-optimal alignment of joints and abnormal forces exerted on the spine and the skeletal system. This faulty loading of joints leads to increased wear and tear and consequently a less efficient movement pattern and potentially pain. Eventually this results in destruction of joints and a shortening of athletic, occupational or recreational careers. At Bodyguards we offer detailed postural assessments using apparatus that quantifies your static and dynamic alignment. We also assess your muscles? length and tension and then prescribe personalised exercise programmes to address and correct any imbalance or misalignment you may have.