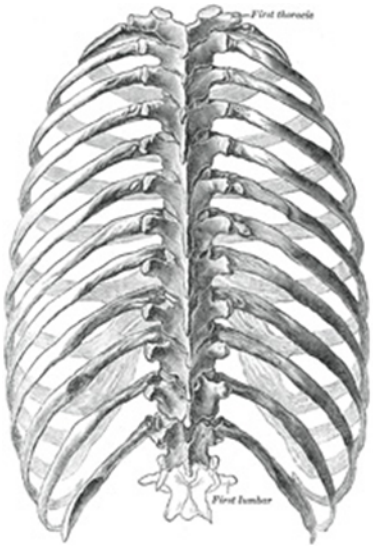
Is the rib bone connected to the foot bone?



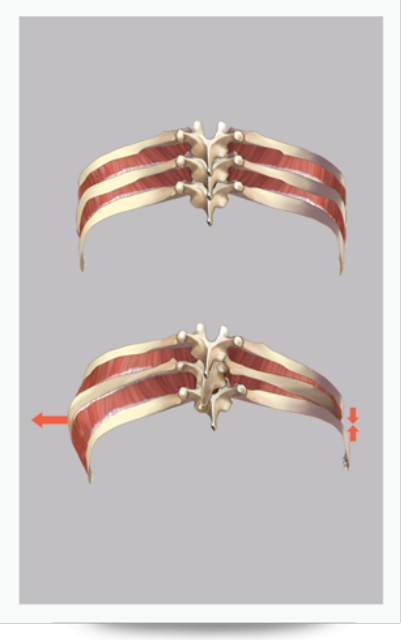
Traditionally, the thorax or rib cage has been thought of as a fairly rigid and immobile region of the body. We now understand that the thorax is an extremely dynamic and important force couple between the upper and lower regions of the body. Current models of the thorax have recognised that the it has movement in all planes and is therefore inherently flexible. It is an area that has to be able to withstand significant buckling loads in the spine and is therefore reliant on good neuromuscular control to help optimise the biomechanics of the area under load.

Historically, clinicians have tended to separate the mechanics of the ribs from that of the thoracic spine and assessed these as two distinct areas. More recently, there has been a growing acceptance that the ribs, vertebra and disc that they attach to, act as a functional ring and due to their attachments to one another, the mechanics of each are intrinsically linked. A change in the position of the rib on one side, results in a change in both the position and alignment of the vertebra to which it attaches, as well as the rib on the opposite side.

Often times, a change in the position or alignment of one 'ring' will result in compensatory changes to levels above or below. Due to the shape of the joints, when a rib or vertebra rotates, there is a coupled lateral shift of the segment. What this tends to mean is that dysfunction of the rib cage, often results in a gross shift of the alignment of the rib cage, changing

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where the centre of gravity is over the feet.



As a result of this change in centre of gravity, we begin to bear load through certain joints and tissues in a way that they are not designed to cope with, culminating in overload and injury. It is common for the rib cage to be pain free but dysfunctional and to be creating adverse stresses, loads and forces that may cause pain in other regions of the body.

Dysfunction and poor alignment of the rings of the thorax also restricts the options for freedom of movement in this part of the body, which often forces the brain to look for different, less optimal strategies for movement. This again may result in overload to joints and tissues and in injury often far removed from the site of the problem. So you see, it really is possible for the rib bone to be connected to the foot bone!

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