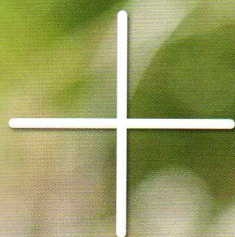


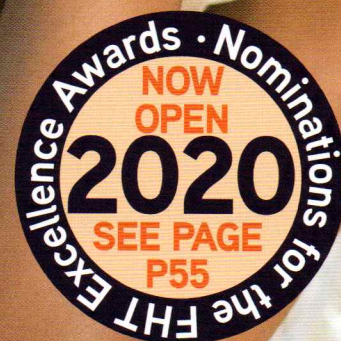
# Health and happiness

Promoting happiness in ourselves and others



**Fuelled by plants**  
– Plant-based diets and sports performance

**Mindful beauty**  
– A look at an eco-friendly beauty salon





# Efficient posture

**Allyn Edwards and Sue Weller** provide an introduction to core postural alignment and how poor posture can affect the abdominal viscera.



Core postural alignment (CPA) is a very gentle form of bodywork that aims to restore and maintain an efficient upright posture for optimum health. While the technique has been through several refinements and name changes over the years, it stems from the work of two pioneering chiropractors, Dr John Hurley and his wife, Dr Helen Sanders, in the 1920s.

### PEP talk

Originally a structural and mechanical engineer, John Hurley was interested in how gravity interacts with the structure of the body. Newton's third law of motion states that 'for every action there is an equal and opposite reaction'. This means that as gravity is pulling us down towards the centre of the earth, there is an equal and opposite force pushing us away from it - something that is known as the 'ground reaction force'.

If the relationship between gravity and the ground reaction force is optimal, then they balance each other out and the body will appear to be 'weightless' and at ease. It will display both poise and grace and require the least amount of resources to hold itself upright. In engineering, using the least amount of resources is described as efficiency. In CPA, we describe the most efficient posture as the static upright physiological efficient posture (PEP).

When a PEP is lost, as a result of injury, trauma, or long-term physical, chemical or emotional stress, the body is pushed into a state of allostasis, which means all of the body's systems have to work much harder to restore balance.

If we were to stand someone in front of a plumb line, a PEP would look something like the illustration on page 32.

The plumb line would bisect the body equally, left to right, and the head, shoulders and hips would be level and parallel. Side on, it would pass through

the middle of the ear, shoulder, hip, knee and ankle. Or, more precisely:

**Posteriorly**, the external occipital protuberance, the seventh cervical spinous process, the fifth lumbar spinous process, the first sacral median crest and the gluteal crease.

**Laterally**, the external auditory meatus, the sulcus intertubercular of the humerus, the greater trochanter of the femur, the anterior proximal tibiofibular joint and the talocalcaneal sulcus.

John and Helen discovered that when the body has a PEP, two specific anatomical points within the pelvic region have a particular dynamic relationship to each other. In CPA we refer to this relationship as the primary alignment. If this relationship becomes lost, then the body loses its PEP. During a CPA session, we assess and then restore the client's PEP, drawing on John and Helen's knowledge of chiropractic, anatomy and physiology, engineering and what we would now call myofascial release.

### CPA consultation



Assessment

#### Assessment

It begins with a simple, yet quantifiable, postural assessment using a plumb line. Once it has been established where the primary alignment is displaced, then the position of a neuromuscular

holding point can be calculated along with a full postural prescription.

#### Alignment

The client lays prone on a treatment couch while an alignment is given. An alignment consists of maintaining a gentle contact on the relevant neuromuscular holding point while

**'While the technique has been through several refinements and name changes over the years, it stems from the work of two pioneering chiropractors, Dr John Hurley and his wife, Dr Helen Sanders, in the 1920s.'**

releasing the persistent distortion patterns in the major postural muscles. This uses a unique finger-tip pressure to release the myofascia.



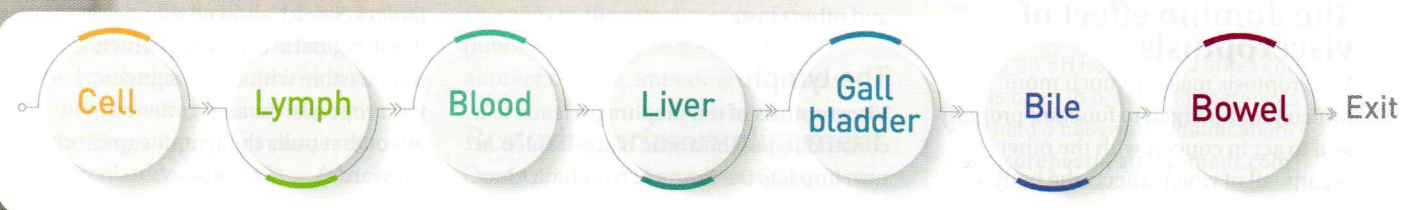
Appraisal

Following the alignment, a post-alignment assessment is made and the improvement can be instantly measured and recorded.

### Posture and the cloacal response

The 'cloacal response' is an old-fashioned term for the body's natural ability to detoxify itself via the bowels. Being placental animals, humans only have an embryonic cloaca, which divides to form the rectum, bladder and genitalia.

The typical pathway a toxin takes from being in a cell to being excreted from the body is as seen in the flow chart below: →





If the flow is impeded at any of these stages, then the system will back up and the toxin will not be able to leave the cell. Postural distortion can lead to a problem at any or all of these stages.

A typical sequence of lateral postural changes can be seen in *diagram 1* below. Initially, the paraspinal muscles – namely the iliocostalis, longissimus and multifidus – will tighten to hold the body upright against the pull of gravity. If the alignment isn't corrected then the larger postural muscles are recruited, such as the abdominals, psoas, lattismus dorsi and the diaphragm. It is important to note these changes are not related to age but rather to the amount of strain on the body as a result of losing its PEP. This can happen at any age. Once a PEP is lost, the strain to the system causes distortion (as outlined above) and the distortion itself puts further strain on the system, which becomes self-perpetuating. We refer to this as the strain-distortion-strain cycle, which gives rise to the postural compensation patterns we see in our practice rooms. These can lead to neurological, myofascial and mechanical dysfunctions, resulting in problems with joints, muscles, fascia, the internal organs and physiology.

As you can see from *diagram 1*, there are plenty of changes occurring in the body. For this article we are particularly interested in the changing positions of the abdominal organs and diaphragm as the posture becomes increasingly distorted.

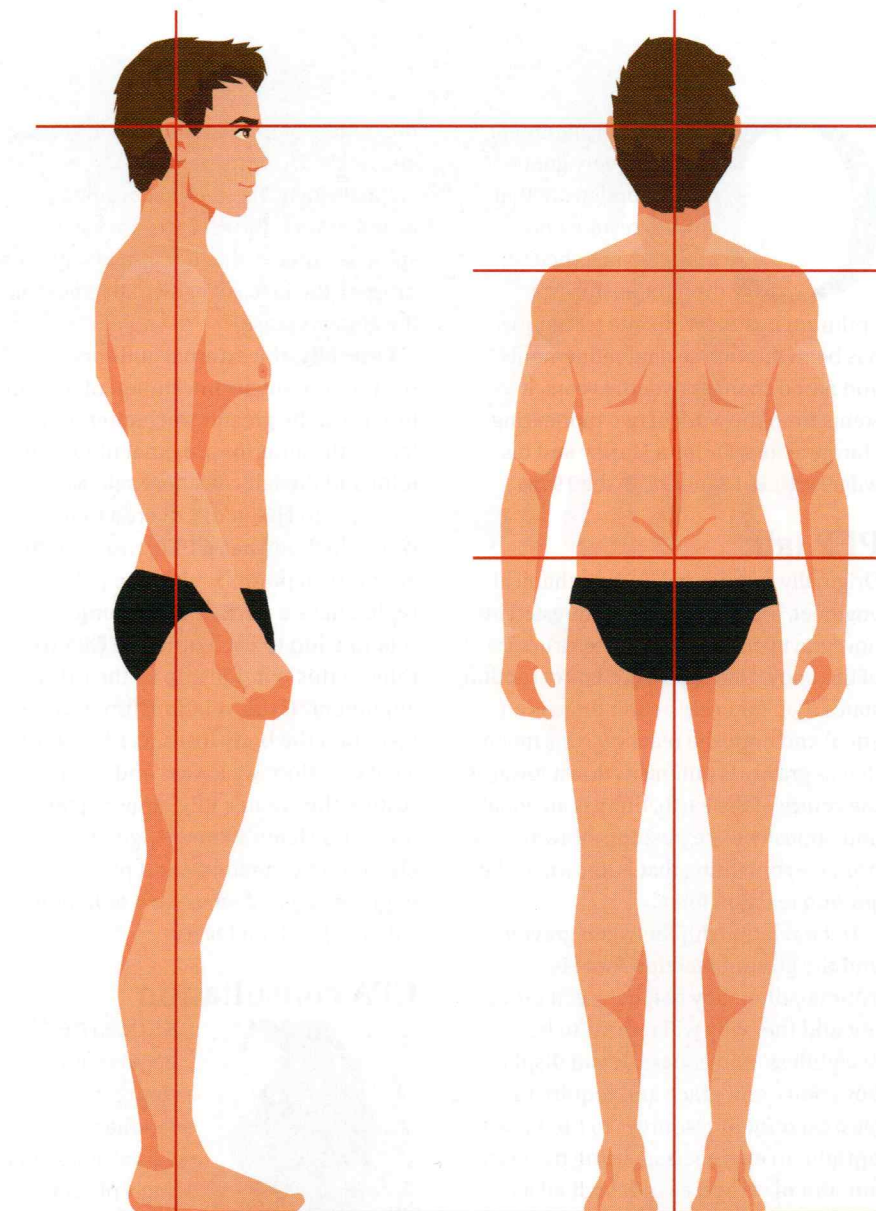
It can be clearly seen that the angle of the ribs, and therefore the position of the diaphragm and the abdominal viscera, sit in a more inferior position. The internal pelvis can be thought of as a shelf on



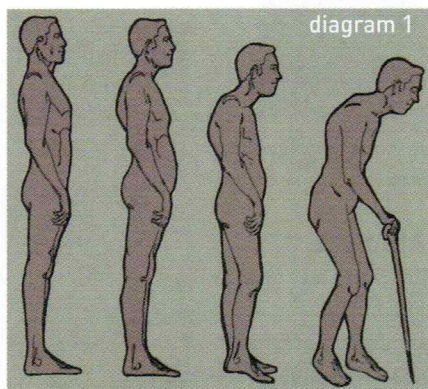
which the internal organs sit. When tilted anteriorly, the shelf tips and the organs slide, resulting in a sagging of the visceral organs, which is known as visceroptosis.

### The domino effect of visceroptosis

Visceroptosis makes it much more difficult for an organ to function properly and to act in concert with the other organs, all of which affects the body's



The PEP as seen at plumb line



ability to process and eliminate toxins and other waste.

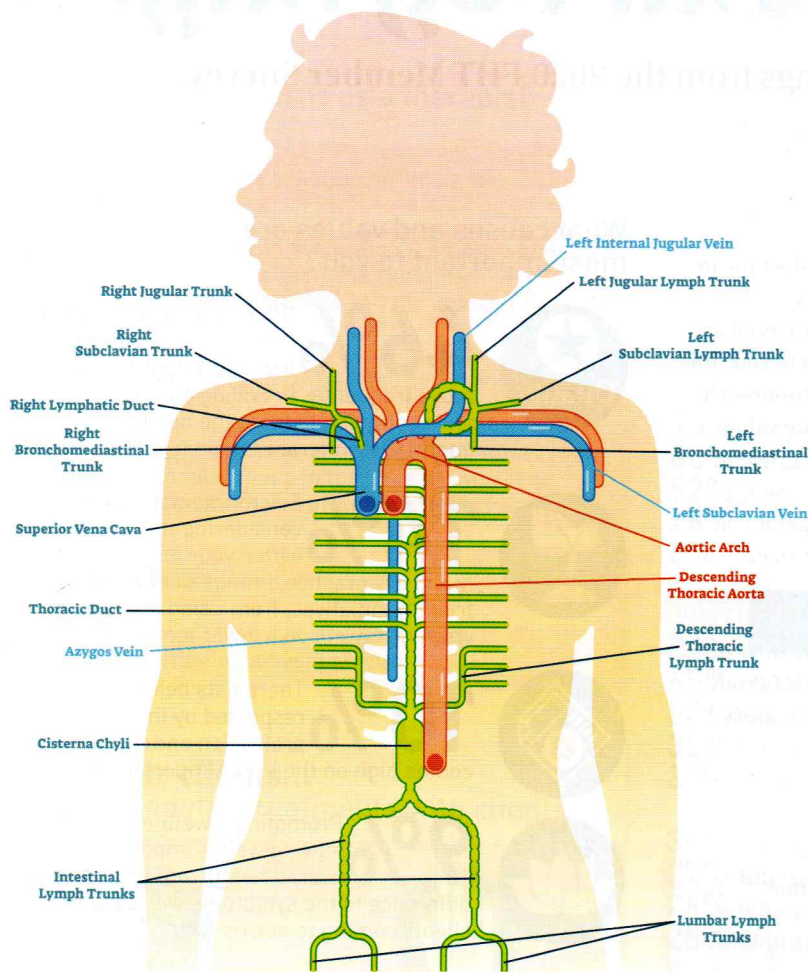
### The lymph

Visceroptosis of the diaphragm leads to a constriction of the aortic hiatus, which in turn impacts the thoracic lymphatic duct.

The thoracic lymphatic duct is the main lymphatic channel from the lower extremities and the abdomen, transporting four litres of lymphatic fluid per day. It plays an important role in bringing the lymphatic fluid back to the heart where the lymph is mixed with the blood and re-circulated. The movement of the lymph is mainly controlled by breathing, and for maximum movement of the diaphragm (and therefore the functioning of the thoracic lymphatic duct), a PEP is the ideal posture. A study in 1979 by prominent lymphologist, Dr Jack Shield, showed that deep diaphragmatic breathing, which is not possible with diaphragmatic visceroptosis, creates a vacuum effect that pulls the lymph superiorly (upwards).



# THORACIC DUCT



Constriction of the thoracic lymphatic duct can cause oedema of the legs and feet, as well as congestion in the organs of the abdomen and pelvis. There can also be a pooling of the lymph in the cisterna chyli leading to a back up of lymphatic fluid.

With a forward head posture there can also be constriction of the right and left lymphatic ducts.

## The blood

Visceroptosis can impact the carval hiatus of the diaphragm and the inferior vena cava. During normal inspiration, the inferior vena cava is stretched open and this increases the size of the vessel, drawing more blood up towards the right atrium. This has the effect of 'milking' the inferior vena cava superiorly, aiding venous return. Reduction in this function can potentially lead to blood becoming trapped in the lower extremities and abdomen, resulting in chronic passive venous congestion, poor venous return or neurocirculatory asthenia.

## The liver, gall bladder and bile

The function of the liver, gall bladder and bile can be impeded by visceroptosis, as well as disturbances to the lumbo-sacral plexus, the sympathetic nerve supply from Thoracic 6 to Thoracic 10, and the parasympathetic nerve supply from the vagus nerve and Sacral 2 to Sacral 4.

## The bowel and elimination

Bowel function itself can be upset by visceroptosis, along with disturbances to the lumbo-sacral and pudendal plexi, the sympathetic nerve supply from Thoracic 10 to Lumbar 2, and the parasympathetic nerve supply from the vagus nerve and Sacral 2 to Sacral 4. Peristalsis is often impaired leading to chronic constipation or diarrhoea. Changes to the attachments of the puborectalis muscle also alters the anorectal angle, impeding evacuation.

## Restoring primary alignment


Over a course of alignments, CPA aims to

restore and maintain primary alignment, allowing the diaphragm and abdominal organs to resume a more normal position and relationship with each other, and gravity, leading to improved function.

During an alignment, the practitioner administers gentle signals to the body around the postural muscles, including the abdominals, which stimulates the lymphatics, encouraging cells to release their toxins into the bloodstream. The blood flows more freely to the liver, the liver is able to function more efficiently, and the bile duct can secrete more bile into the intestines. Peristalsis can resume at a better rate, encouraging greater and more complete motility throughout the bowel with an eventual improved cloacal response.

## Additional benefits of CPA

Of course, removing postural distortions and restoring primary alignment have many more benefits than just to the cloacal response.

Joints can be re-aligned more easily as you are not working against the paraspinal muscles. Muscle release techniques are more effective, as the larger postural muscles can release the holding patterns they have had to adopt. The twists and restrictions in the fascia are more easily removed as there is less postural disturbance to the fascial system holding them there. Postural re-education is easier as the body isn't trying to avert collapse. As the energy channels within the body are lined up, the body will accept energy-based techniques more easily. Wellness will be enhanced because of increased vital capacity, improved circulation, lymphatic drainage, a decrease in visceroptosis and a return to homeostasis. 



**Allyn Edwards and Sue Weller** are both registered chiropractors and have been refining and teaching core postural alignment (CPA) since 1998.

CPA is an FHT accredited short course and is open to practising therapists who hold a bodywork qualification.  
[www.coreposturalalignment.com](http://www.coreposturalalignment.com)