

Aromatherapy Times

WINTER
2014

Volume 1 No.103

£ 4.50

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THE JOURNAL OF THE INTERNATIONAL FEDERATION OF AROMATHERAPISTS

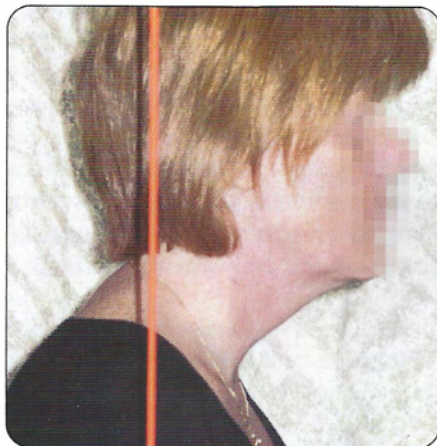


Forward Head Posture by Sue Weller and Allyn Edwards

As its name suggests forward head posture (FHP) occurs when the head is forward of its support, in this case the shoulder and upper thoracic area. It is also known as 'Anterior Head Carriage', 'Scholar's Neck' or 'Reading Neck'.

In the upright physiological efficient posture, a plumb line would come down through the middle of the ear and shoulder. The head would be supported by the neck muscles with minimum effort. On top of this you look and feel vital.

However with FHP, the plumbline lands posterior to the ear. As can be seen in this image, the plumb line is several inches behind the middle of the ear. This degree of deviation from the ideal posture will be affecting physiological function, causing muscle strain and also has a cosmetic affect.



Why Do We End Up Like This?

The initial causes of poor posture go back to childhood. How we carry ourselves then determines our patterns as we age. The problems don't tend to be apparent when we are young and physically active, although we are seeing an increasing numbers of children in our clinics with FHP these days (more about this later). But as we develop new interests and our lives become more sedentary then the lack of muscle tone allows the problems to rise to the surface.

As most people reach their thirties distinct postural changes become evident when assessed at a plumb line. The shoulders become more rounded, the head inches forward; there are changes to the cervical and lumbar lordoses; a thoracic kyphosis begins to develop along with a sagging chest and protruding belly (visceroptosis).

Why?

The average adult head weighs between 8 and 12 pounds, similar to the weight of a ten pin bowling ball!

Try holding a bowling ball with a straight arm, you will soon find that your arm muscles tire. With FHP this is exactly what you are asking the muscles of your neck and upper back to do twenty-four hours a day.

Dr. Adalbert I. Kapandji stated, "For every inch of forward head posture, it can increase the weight of the head on the spine by an additional 10 pounds".¹ In our clinic we regularly see people with 3 inches, 4 inches and even 5 inches FHP! According to the Mayo clinic, this leads to long term muscle strain, disc herniations, arthritis and pinched nerves.²

It is no surprise then that neck and upper thoracic symptoms are what bring a large percentage of people into our clinics.

Some of these symptoms include:

- headaches
- loss of range of motion
- dizziness
- fainting
- migraines
- lymphatic, lung and respiratory conditions
- increased wear on the discs and other articular components
- decreased lung capacity
- compressed thoracic cavity
- TMJ dysfunction
- digestive disturbances

- uncoordinated gait and poor body balance

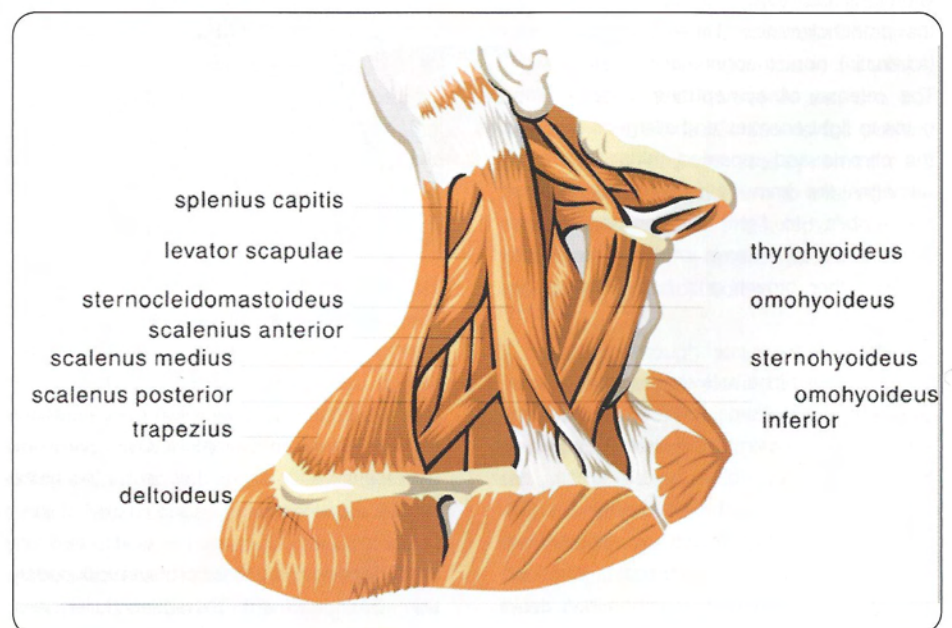
What Is Happening To The Soft Tissue?

Collagen, the main component of connective tissue, naturally tends to contract. Connective tissue needs to be continually used and stretched to remain flexible and hydrated. The hydration and nutrition of tissue occurs during movement due to the compression and relaxation forces. The longer someone has FHP the less flexible the tissues in this area become, leading to tighter and less hydrated muscles and ligaments. When the tissue isn't moved it simply dries out.

Flexibility is also determined by the elasticity of tissue, which in turn depends upon the collagen fibres ability to expand and glide easily over each other. Inactivity and tension work against this ability by causing the fibres to stick together at points where they intersect.³

Tight Weakness Versus Stretch Weakness

With FHP the flexor muscles of the neck, such as levator scapulae, pectorals, sternocleidomastoid and the scalenes, become chronically shortened and will no longer stretch to the degree they once did. These muscles test strong in the shortened position but weak as they lengthen, this has been termed 'tight weakness' or 'chronic shortening'. This is considered by Janda to be the most severe form of muscle shortening that is often overlooked in a clinical setting.³ Just as FHP permanently shortens some



muscles, it permanently stretches others. Muscles habitually kept stretched beyond their physiological neutral position tend to weaken. This is known as 'stretch weakness'.⁴ The elongation of a muscle beyond its physiological neutral position results in inhibition of the muscle spindle - the sensory receptors within the belly of a muscle. The muscle spindles primarily detect changes in the length of the muscle. This information is used to determine the position of body parts relative to each other. With FHP the extensor muscles such as lower cervical, trapezius and hyoid muscles suffer from 'stretch weakness'.

These changes in the muscles produce a mechanical limitation on the motion of the neck, a serious loss of function and an increase in discomfort and pain.

A Loss of Vital Capacity

Rene Cailliet M.D, states that one of the more insidious problems of FHP is that it depletes your pulmonary capacity by as much as thirty percent.⁵ With permanently constricted chest and overstretched shoulder muscles, and the loss of the cervical lordosis blocking the action of hyoid muscles and the first rib, make it impossible for the chest to fully expand on inspiration, reducing vital capacity. This may also result in an increased chance of heart and vascular disease.

Poor Gastrointestinal Function

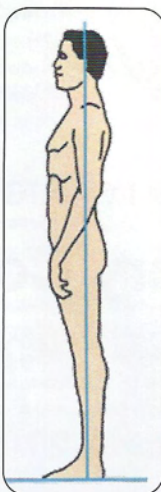
FHP generally leads to a rounding out affect on the whole spine, i.e. kyphosis. The intestines are connected to the spine by a string of tissue. If the spine is fairly straight, the intestines are held taut, but with a sagging of the tummy the bowels come to rest on the pelvic floor, inhibiting the passage of the contents.

Causes of FHP

The causes of FHP are numerous; micro and macro traumas, repetitive actions, sleeping with the pillow too high, extended use at a computer and texting are just some of the more common.

We have noticed that we are seeing more young people presenting with FHP. The private health insurer, Simplyhealth, conducted a survey recently and found that young adults averaged a staggering 8.83 hours in front of their electronic devices. Longer than what they spend asleep!⁶ If you have watched someone walking down the street texting or sitting and playing at their game console you can see their FHP and

general slumping posture developing.



Through Rest Comes Restoration

With the adaptive shortening and stretching of the postural muscles associated with FHP we need to look at how the body can be helped to restore the proper function to these tissues. Restoration requires the muscles to be able to enter a state of rest, where they can dump the metabolic toxins that have built up. The flexibility and

movement of the collagen fibres also needs to be restored. We have found that one of the more sustained approaches to address these matters is to assess and treat the global postural changes that are occurring throughout the whole body

Restoration of these postural muscles can be induced through improving postural alignment and efficiency.

FHP doesn't occur in isolation. We need to assess and address the global postural pattern. Ideally the head needs to be balanced over the body's centre of gravity, which is just anterior to the L5/S1 joint. When the centre of gravity is balanced with its counter weight at S3, and the lateral curves are normal the body can hold itself up with poise and efficiency.

The aim of postural work is to improve the efficiency of the posture via normalising the function of all the postural muscles.

In order to effectively reduce a FHP the whole posture needs to become more aligned. FHP tends to encourage a general forward lean of the whole posture from the ankle up. This leads to the weight of the upper body being supported through the facet joints of the vertebrae rather than the body of the vertebrae. So to restore balance to the weight distribution we need to reduce this strain.

We have found that by using Ishta Spinal Touch we encourage the body to alter the global postural pattern by restoring the relationship between the centre of gravity and the counterweight, reducing the forward lean and improving the lateral curves. All this allows the weight of the upper body to be

distributed through the vertebral bodies, across the pelvis and down through the balls of the feet.

These postural changes allow the compression and relaxation forces to be restored to the postural muscles which lead to increased hydration, nutrition and flexibility of the muscle fibres.

In order to see how your clients FHP posture is improved by the work you do why not introduce pre and post postural measurements? Clients are also very interested to see how their posture is changing. They are then usually encouraged to make the lifestyle changes you have been advising.

Simply set up a plumb line and a foot board and start taking measurements. We have provided a free guide to performing a simple lateral postural assessment for all readers of this article. Please go to <http://www.ishtaspinaltouch.com/at.html> where you will find instructions on how to make your own plumb line and you can also download a free footboard. These will give you a vertical and horizontal reference point to compare your client's posture to.

If you find yourself inspired to introduce postural work into your modalities and would like to study further, then please visit our web site on Ishta Spinal Touch for more information, <http://www.ishtaspinaltouch.com/Training.html>.

"To live a long, active, energetic life, few things matter more than good posture"
Rene Cailliet, MD (The Rejuvenation Strategy)

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