

THE RELATION BETWEEN THE SIGHT AND THE HUMAN POSTURE

By Peter W.B. Oomens (posturologist)

Summary:

In this article a relation between sight and position is described. It is explained that the way of standing (and sitting) influences the function of the motor eye muscles. Furthermore a relation is described between the rotation around the body axis and the dominance of one of the eyes. A correction of the position, according to the podo-orthesiological (podopostural) point of view, instantaneously results in a reproducible, detectable and measurable positional improvement. Interestingly, after such a positional improvement, convergence of the eyes becomes easier, both subjectively as well as objectively.

Subjoined the abstract of my article in the Dutch language:

'Nederlands Tijdschrift voor Integrale Geneeskunde' the article
'Zien, een andere kijk op de houding', NTIG 1994; 10(2): 66-71.

Introduction:

More than twenty years I had a practice in podopostural therapy, where I treated patients with posture related disorders, often chronic or asymptomatic. After a thorough physical examination I provided my patients with very thin insoles on which I glued pieces of cork at a thickness of 1 à 2 mm. These subtle insoles have a disproportionate influence on peoples posture, immediately, objectively, measurable and repeatable. The cork elements are placed under plantar situated, intrinsic foot muscles. During stance and walking these elements trigger the baroreceptors in the glabrous skin of the foot sole. This therapy becomes practiced in the Netherlands already from 1978.

In the time I became more and more consulted by parents for their children, in the age from 5/6 till about 14/15. These children had in common that they did not like, found it fatiguing and often, the young ones liked to take off their shoes. Most of them had a poor posture.

One day in the early nineties I had a 13 years old girl in my practice, wearing glasses -/- 6 bilateral and standing in the typical girl way: overstretched knees. I had already the experience that wearing glasses influenced the head rotation, so at that time I asked my patients to take them off. Standing on a so called podobaroscope (lighted mirror) the girl was looking at a Snellen eye chart and after my correction she suddenly shouted 'I can see much better'. I tested this immediately, both with and without my correction. Indeed she did and it was a fact that I have seen afterwards very often, however. . . mainly with children. At that time, not having internet, I contacted two eye doctors and an optometrist. None of them could explain me what happened. So I had to find out myself. As a PT and with special interest in neurophysiology, I had medical knowledge but, regarding the eye, very basic. After an ample research I decided in 1994 to publish in the 'Nederlands Tijdschrift voor Integrale Geneeskunde' the article:
'Zien, een andere kijk op de houding', NTIG 1994; 10(2): 66-71.

The sight:

Seeing with both eyes we call binocular. When we sleep our eyes move laterally. As soon as we open our eyes, signals from the brains activate the nasal motor muscle which makes the eyes looking straight forward. However we do not only want to see binocular at a distance, but also nearby.

This is possible by a very complex mechanism: the accommodation-convergence-miosis synergism. When this system does not function as it should, our sight becomes fatigued. We call this asthenopy. In the beginning we are not always aware of this problem, till our eyes begin to itch, to tear or get irritated in another way. Reading becomes a problem, the eyes tend to divergence by contraction of the lateral motor muscle, and sometimes we get a double sight. The pupil widens, the eyes are obviously stressed. Not only reading becomes difficult, also our sight at distance. We call this pseudo-myopia (myopia = near sight).

Head- c.q. body rotation, related to eye dominance:

What is a dominant eye? Put two objects at some distance behind each other and look at them. Close one eye. When the picture remains the same, the looking eye is the dominant one. Now repeat this closing the other eye and the picture will change. The dominant eye causes a head rotation **from** that side and some neck extension. When for instance your left eye is the dominant one, your head will rotate, around the longitudinal body axis, to the right as it will rotate to the left when your right eye is the dominant one.

The head however is not the only body part that rotates. . . the trunk, and in fact the whole body follows. Sometimes perceptible. . . but many times hardly. Now do the following test: when your left eye is dominant: stand on both feet and let your arms hang. Rotate your head slowly, as far as possible to the right. Your body will follow and at the end you will feel that you rest more on your left leg/foot then on your right one. Your left leg starts to bear the most body weight. Conclusion: your left leg becomes physically the 'short' one, since weight goes to the lowest point.. If there are no pains or malfunctions this has not necessarily to be changed. When your right eye is the dominant one do the opposite.

Further, look at (your) used shoes. . . almost always you will see that the left and the right one have been wear out differently. This all need a trained observer.

The conflict of the eyes:

The situation becomes more complex when for instance the body rotation is not conforming the description above. Following the example of a left dominant eye above, the head now rotates **to the left** (instead of from) bending forward at the same time. This situation is in my opinion a-physiologic. These patients often complain about one side headache (migraine), neck pain, sometimes dizziness and postural complaints.

Prism glasses:

What is the underlying pathology?

Although my sight research concerned mainly children, I examined of course also my adult patients from that time. I saw them often with irritated eyes and widened pupils. With them I did the following test. It can be done seated, but personally I prefer the patient standing. Take a pencil and ask your patient to fix his eyes at the point of it. Now move it slowly to their nose. If there are no problems and or pains, both eyes will follow and rotate inward. In case there are problems one eye, and even sometimes both, try to rotate inward, but often do not succeed. Now ask the patient to put a hand over one eye and repeat the test. You, and the patient, will often note that the opened eye succeed to do so.

Many eye therapists tell their patients to exercise this, which in my opinion (can) create(s) even more problems. They consider the nasal motor eye muscle as weak; I think the temporal motor

muscle contracts to strong, related to the (a-physiologic) position of the head. This might look complex, but people want a horizontal eye - ear line.

In the a-physiological example here above I wrote that the head tends to bend forward. To improve the sight depends then mainly of the lateral contraction of the eye muscle.

The 13 years old girl in the beginning of my article saw suddenly much better, without glasses, because I dynamically balanced her posture with my podopostural insoles. Less overstretched knees, less deep lordosis and a more horizontal eye - ear line.

In the meantime I had visited a physician who prescribed prisma glasses nasal. These glasses 'help' patients to 'look around the corner', in fact help them to accommodate more easily. I have seen hundreds of children in my practice, not liking to walk, taking their shoes off.

But many of them had also reading problems, behavior problems (hyper activity did not exist at that time). Dynamic correction of their posture, often in combination with prisma glasses, has improved many of them dramatically.

Both insoles and prisma glasses are temporarily.

Posturology:

In my opinion these were my first steps as a non-pharmacological, neuromodular **posturologist**. I think that all skin applied techniques and body positioning neural impulses belong to the posturology.

Peter W.B.Oomens
Research on posturology
The Netherlands
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