

Physical exercise, wellness and posture in the young age

Author: Prof. Daniele **RAGGI**

Degree in Sport Science, Physiotherapist, Posturologist, Kinesitherapist, Mézières practitioner.

Lecturer in Posturology c/o School of Medicine (Department of Experimental Medicine and Pathology), Università "La Sapienza" in Rome and c/o School of Sport Science, Università Cattolica in Milan. Director of Posturalmed (Posturology studio) in Milan.

"KEEP YOUR BACK STRAIGHT" ...

ONE OF THE MOST COMMON SENTENCES PARENTS TELL THEIR CHILDREN.



"If you do not keep your back straight, you will become hunched like your grandfather", "Keep your back straight and your shoulders up", etc. These are sentences that are handed down from one generation to another. The impact of these words makes people correct their posture immediately, but after few minutes they go back to their old posture. Keeping a correct posture is a concrete difficulty for some backs, so it is not a question of weak will but a real impossibility due to back muscles, which are prisoners and victims of a disharmonic muscle tone.

If the parental recommendations were really effective, no young or adult person would have the typical kyphotic or hunched posture. In fact, many people suffer from postural imbalances caused by musculoskeletal system: hunched back, hyperkyphosis, hyperlordosis, flat back, etc. In many cases a consequence of a wrong posture is a typical back pain. Recent studies show that at least 85% of the world population suffers from low back pain.

In order to understand the reasons why our back tends to hunch and our posture to alter, it is necessary to understand the musculoskeletal dynamics acting since the very beginning of human life.

Excessive muscular tensions can annoy, stiffen and irritate the joints causing all kind of postural alterations, pain and chronic tiredness. This is how joints become victims of the pressure caused by muscular stiffness. The same stiffness can also be responsible for abnormal solicitations of nerve endings and therefore the brain, which they force to react with constant but ineffective postural adaptations. A continuous overdose of information will lead to new postural alterations and to an

increase of the chronic tiredness typical of the muscles in charge of back and shoulders support. This explains why it is almost impossible to keep shoulders and back “straight” for more than 2-3 minutes.

“It is not the muscular strength alone which allows joints to be free and functional, but the *freedom* and the *balance* of that strength, which gives freedom, stability and *postural functionality* to all areas and systems of the body.”

People with a good postural balance (that is balanced muscular tensions) are never hunched. A hunched posture is due to an imbalance of the Tonic Postural System. It is not a question of muscles being too weak, as many people think, but a question of too stiff and too short muscles, instead.

Parents who do not know the logic of muscular chains and postural alterations use with their children an advice which, instead of providing a more correct posture, will lead to an increase of back tensions or to other postural alterations in different areas of the body.

Postural alterations can be determined by various factors, such as: heredity, character, old traumas, breathing problems, wrong postures, emotional conflicts, etc.

Youth represents the time of the “clashes”, with ourselves, the others, sex, parents, teachers, society. Disappointments and failures can leave a deep impact on posture. Everybody has experienced how a big argument or a disappointment can lead to a character and posture closure, as a defense.

There are other disturbing elements of postural system, such as malocclusion (according to Dr. Bricot, any malocclusion or orthodontics affects posture), incorrect swallowing, visual malfunctions, intestinal problems (eating the wrong food often leads to abdominal and intestinal tensions, dysbiosis, fermentation, etc.), environmental stress (geopathic stress and electromagnetic fields), scars, etc.

Also a too-hectic lifestyle can cause postural alterations. Nowadays accelerated rhythms concern the youngest as well. By living in a virtual reality through videogames they are more and more distant from real life.

Another burdening factor for young people is the lack of space and time to play outdoors. Once children used to play most of the day in spaces such as the countryside, parks, and courtyards, which offered more adequate stimuli for a correct psychomotor development. Many studies have shown how a lack of traditional playing brings about also a lack of adequate stimuli for the development of curiosity, creativity, brilliance, reflection, respect of the rules, etc.

“Postural critique” can also concern how people conceive and practice sports. Sport favors heart, circulation and breathing conditions and stimulates a correct development of motor abilities. However, if it is practiced in the wrong way, it might cause postural imbalance.

“Sport enhances any existing physical condition; the aim of postural reeducation, which should precede sport, is to align, correct and straighten those parts of the body in need.”

“Not all sports are suitable for any age and posture.”



Sooner or later, every family has to face the choice of a sport for their children. Many parents choose a sport which some of their friends or one of them practice or used to practice; others choose according to their sport idol; others listen to advice such as “Choose swimming which is good for vertebral column”, “While swimming the vertebral column is in a status of gravity absence and therefore it is not loaded”.

Swimming on Wikipedia is defined as “the self-propulsion of a person through water or another liquid”; so the movement of the body is possible thanks to continuous repeated movements involving the whole muscular system (above all, upper and lower limbs), which allows to move and float winning water resistance. In spite of what people think or say, moving and swimming in the water is a huge effort for our muscles and skeletal system. It is not true that column is unloaded in these circumstances. It is true only when you float without intentionally moving. While swimming the musculo-articular system undergoes huge efforts and compressions of the joints involved in the movement. In fact, people suffering from joint pain in some cases cannot swim freely or in a proper way, even if their back is supported by water.

This is the reason why swimming in the presence of posture alterations (hunched back or shoulders, scoliosis, hyperlordosis, etc.) not only is not recommended, but in some cases it can also be damaging for the skeletal-muscular-articular system and therefore posture. There is scientific evidence proving what has just been asserted.

Other common statements are:

“If you practice basketball you will become taller.”

“If you practice volleyball you will straighten your back.”

It is deceptive to look only at sports typical posture attitudes (for instance the classical position of a volleyball player kicking the ball up or of a basketball player trying a jump shot), which gives you the idea of the players back becoming lengthened or straight. As we said before, adding new working loads do not solve tensions and muscular problems.

Any sport gesture, as we said, is a muscular effort. Any attempt to “straighten” an already hunched back will therefore lead the tonic postural system to overload other areas of the body (the so called “compensation” areas). Those overloaded areas (often lumbar region or neck), will have to compensate for back stiffness and limits and in the future they will develop inflammations or pain (low back pain, cervicgia, etc.). It is in fact quite common to see high-level athletes suffering from skeletal-muscular-articular problems.

Any postural deviation is complex and depends on different factors. For this reason, it has to be taken into serious consideration, also by the most expert Posturologists. Never take anything for granted. Every case is different from the other ones, unique, the result of a personal history and life which often includes sport traumas.

Before undertaking any kind of sport, it would be appropriate to consider an accurate postural analysis, which helps understanding what sport suits best a young athlete's posture and whether it is advisable to do some sessions of "Postural Reeducation" first.

The last element to take into consideration, useful to explain the presence of many postural problems and pain also in young people, is that men in the past used arms and legs to move and not just legs as they do today.

During the years this lead back muscles to do extra work (and so tensions) to keep us straight, give us balance, freedom to the arms and stability.

While we are standing we use the back muscles all the time, many hours a day, therefore they are overloaded and too tense and tend to become shorter with the years.

So how can these muscles be defined as weak when they work for sixteen hours a day to maintain our erect position.

It has been discovered that excessive back muscle work is responsible for shoulder and back closure. The constant effort of these anti-gravity muscles takes the body to future stiffness, shortness and hunchback. The strength of muscular tensions compresses and blocks the joints, leading to inflammatory processes, damages in the cartilage and therefore arthrosis and pain.

Physiology speaks clearly: muscles can only get shorter and relax, but they cannot stretch (autonomously), as people generally think. Even the cats, which still use four legs, need to stretch every day to keep themselves flexible and to catch their food until when they are old (this is such a strong genetic memory in cats that also the ones living at home do the same, even if they do not need to).

For alley cats, the law of surviving leaves no space to laziness or whim: they have to be agile, otherwise it is impossible for them to survive! Man has wisely become bipedal, instead, and stupidly capricious and lazy (today everything is done through the phone or internet). This laziness and ignorance make us loose our will to walk and to stretch intelligently. People have to change such bad habits in order to protect their health and wellness. Now there is an easy and comfortable way to do postural stretching, which is perfect for young people, too: it is the *global non-compensated muscular stretching*.

Through this method it is possible to balance the tensions of the muscular chains (which are responsible for the postural alterations, as we said before) obtaining skeletal-musculo-articular wellness.

People are asked to take on specific postures (see figure 1), thanks to which it is possible to work at the same time on every point of the muscular, fascial and connective chains and set joints free from short muscles.

This method requires the constant usage of breathing techniques to support posture modification.

The used tool, Pancafit®, allows exploiting gravity through many possible exercises and postures, so it facilitates considerably the therapist's work. Through global non-compensated muscular stretching is therefore possible (and it has been proved by many research projects carried out at



Università "La Sapienza" in Rome) to give back muscles their flexibility and so also freedom to joints, permitting a correct realignment of the whole posture. See the evident effects in figures 2 and 3. With this kind of postural rebalance it will not be necessary to say anymore: "If you do not keep your back straight, you will become hunched like your grandfather"...

During rebalance sessions the patient regains the skill to stand straight in a natural way, without a conscious muscular effort.

Figures 2-3: hunched back: result obtained after 12 sessions of Posturology with global approach through "global non-compensated muscular stretching". After the treatments for postural rebalance, thoracic kyphosis, ante-position of head, neck and shoulders (white vertical line), result considerably reduced. Also piano masticator (yellow dotted line) is more horizontal and trachea and esophagus less pressed (red dotted arrow). The



reduction of the excessive back curvature can be seen in the reduction of the space between the red vertical line and the lumbar region. This proves a more correct and physiological vertical alignment, which will lead to wellness and functionality.

For more information on the Raggi Method®- Pancafit® please address to Posturalmed S.A.

Tel. +39 0239257427 or +39 0239265686

- Fax +39 0239200420

Email: corsi@posturalmed.com

Website: www.posturalmed.com