

## Joint pain: To tone up or stretch the responsible muscles?

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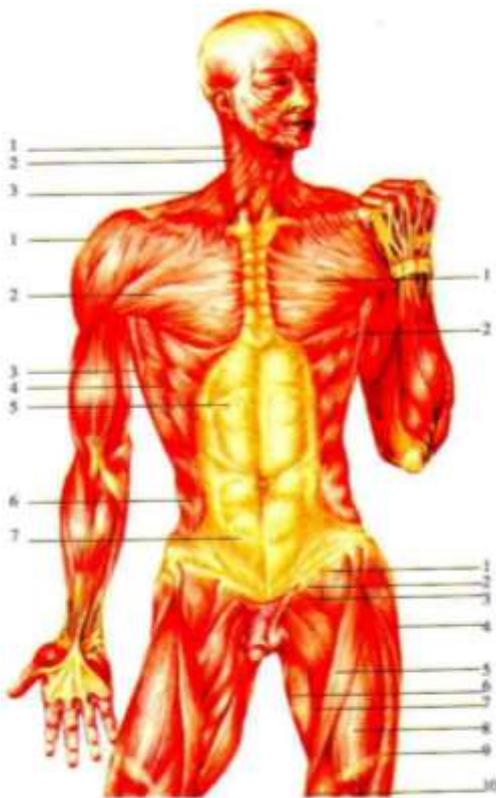
A specialist of health and wellness seeing a person suffering from joint pain should first make some general evaluations, then verify the muscular condition and make an accurate postural examination. Knowing the patient's history is really important since it allows the specialist to know a lot about the causes (accidents, surgery, traumas, illnesses, etc.) of his/her actual condition. The data collected during the anamnesis lead to a clearer vision of the cause-effect relationship that has brought about the joint pain.

A still very common attitude is to suggest toning up the muscles of any part of the body as a solution to any kind of musculo-articular problem.

### But what does "tone up" really mean?

It is commonly thought that "tone up" means to increase the volume of the muscles in a positive way, so that they become bigger, stronger and more high-powered. From a scientific point of view, it means instead to increase the already existing tension on the muscle, reducing its elasticity. It is therefore fundamental to understand the importance of muscular elasticity.

Think about a cat: who would not like to have its dynamism, plasticity and elasticity? Cats stretch regularly every day, i.e. they maintain an innate and instinctive correct habit: they do stretching, we would say! In this way, they keep a good functionality of their body, which is necessary in order to remain elastic, dynamic, and to be able to catch their own food by hunting, as it used to happen in the past. Being physically disabled would in fact be a serious threat to their survival. So why have people forgotten how to stretch their muscles as they used to do every morning when they were children? Maybe it is a question of education, maybe it is the lack of time, maybe.



**Fig.1 Torso, anterior sight.**

**Neck:** 1 sternocleidomastoid, sternal portion; 2 platysma, 3 trapezius.

**Torso:** 1 deltoid; 2 pectoralis major; 3 latissimus dorsi; 4 serratus major; 5 rectus abdominis; 6 obliquus abdominis externus; 7 rectus sheath.

**Thigh:** 1 ilopsoas; 2 pectineal; 3 long adductor; 4 tensor fasciae latae; 5 sartorius; 6 inner gracilis; 7 great adductor; 8 rectus femoris; 9 vastus lateralis; 10 vastus medialis.

So, if nature teaches us the importance of elasticity, why are people still suggesting toning up muscles even before verifying the real conditions of the joints and the related muscles?

In case of back pain, the most common suggestion is to strengthen the lumbar zone and the abdominal muscles. Nothing could be worse!

We will now explain you why, through a very simple test that you can easily try at home.

Stand up and put a thumb on your lumbar zone muscles in a way that it goes deep inside them. Now walk. What did you feel? The muscles have immediately become tense. If we go on doing that for days, months or an entire life, would we say that those muscles are few toned? Or do we have to admit that they are too tense, too stressed, instead?

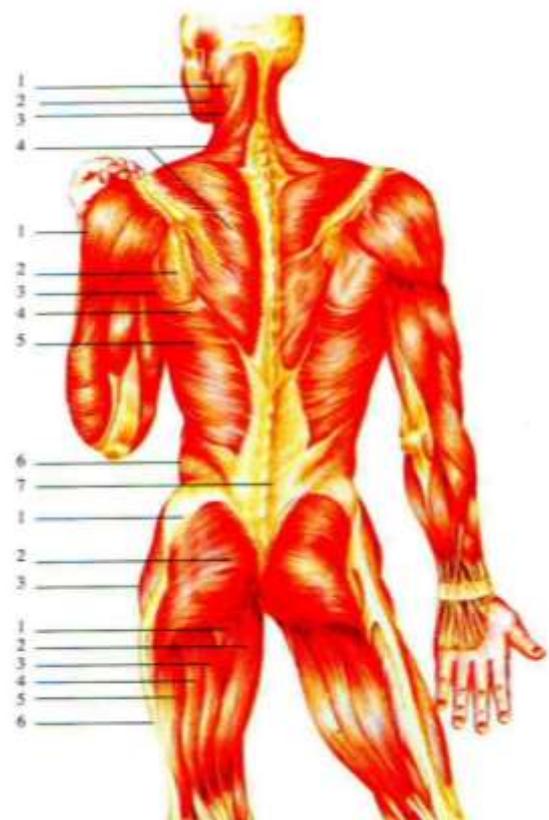
The lumbar zone, like other zones often suffering from joint pain, is affected by too tense and too short muscles that block it and compress it, damaging it and creating pain and inflammations.

Let us now think of our bearing, i.e. the personal way in which we stand, move, breath, act, etc. Think about our life style, daily stress, past traumas, fractures, lack/excess of movement, wrong movements, repetitive gestures at work or playing sport, etc. For any of these stimuli the muscular tissue reacts in a unique way, i.e. by accumulating tension.

We now know that over the years, tension overloads lead muscles to be shorter and retracted, since they are not able to stretch by themselves. And a retracted muscle is a hypertonic muscle, as previously said. When a muscle becomes shorter, it causes an excessive compression on the related joints, which at the same time generates joint **coaptations**.

Think at the two bones constituting a joint as a piece of parmesan cheese and a grater: press them one against the other. Here is what happens to your joints over the time: cartilages consume themselves by rubbing one against the other till reaching the bones.

In addition, it is important to consider that a short muscle does not disturb only the joint directly connected to it, but also other more distant due to muscular chains, causing annoyance and pain. A “chain effect” takes place, for which the pain appears in a part of the body that is distant from the one where the cause



**Fig.2 Torso, posterior sight.**

Neck: 1 splenius, 2 sternocleidomastoid, 3 levator scapulae, 4 trapezius.

Shoulder: 1 deltoid.

Torso: 2 infraspinatus, 3 teres minor, 4 teres major, 5 latissimus dorsi, 6 obliquus externus, 7 aponeurosis of latissimus dorsi.

Hip: 1 aponeurosis of gluteus minimus, 2 gluteus maximus, fascia lata tensor.

Thigh: 1 great adductor, 2 gracilis, 3 semitendinosus, 4 long head of the femoral biceps, 5 vastus lateralis of the quadriceps, 6 tensor fasciae latae.

was. In other words, if one ring of the chain (one muscle of the muscular chain) is shorter, than the entire chain will result shorter, propagating problems and pain everywhere.

We know that the most part of the musculoskeletal pathologies is linked to the mechanism of muscular tensions and retraction, discharging its devastating effect on the joints and causing: tendinitis, myositis, bursitis, capsulitis, cervical pain, low back pain, sciatic pain, periarthrititis, herniated disc, hiatal hernia, hyperlordosis, hyperkyphosis, axial rotations of a joint, postural alterations, up to degenerative processes of joint, such as arthrosis.

So muscular retractions cause articular compressions. Everybody experiences this kind of process during life. For the same reasons, it is possible to see even 10-15-age guys suffering from back and knee pain. No matter how old patients are, after facing this type of problems with examinations and medical consultation they address to a gym to do some “healthy movement”, i.e. to tone up.

However, the first thing to do should be a postural evaluation and some tests showing the degree of joints stiffness and which of them are more compressed. If the patient shows an altered posture due to evident retractions, it is essential to release the joints before letting the patient do any kind of movement. This will allow them to move more easily and without consuming the cartilages which upholster the joints and people can then really benefit from doing exercise.

There is a specific kind of muscular stretching, which considers what we have just said. It acts on muscular chains globally, giving in few minutes the feeling of moving more freely.

If, instead of doing this kind of work on a body with short muscles and blocked joints, we did tone up exercises, the bad condition of the joints would increase immediately, since by favoring the shortening of the muscles the joints will be even more compressed.

Let us make some clarifying examples. Think of the body as if it was a car which has had an accident: before having it repainted, it would be necessary to remove all the dents. And if the accident was particularly serious, it would also be necessary to rebalance its shell first (body correct posture) before having it repainted and eventually boost the engine, but not the contrary. For the body it is the same thing: it needs to be rebalanced, to loosen its tensions, and only at the end it will be possible to tone up the structure.

### **Global non-compensated muscular stretching**

It is a completely different way to do stretching. With this method it will be possible to discover not well-known aspects: the mechanisms of compensation the body actuates unconsciously when you are trying to stretch some muscles and which immediately shorten other muscles, due to the interactions of muscular chains.

Because of the operating principle of the muscular chains, it is not possible to solve problems by acting on the effect, it is instead necessary to work on the cause!

That is exactly how the method works; in fact it allows achieving extremely quick results in almost all the pathologies we spoke about before. We will show you some exercises which prevent the body from “escaping” from the correct position; the body is so forced to accept delicate stretching tensions, without any effort or struggle for the person.

The position of the two levels can be adjusted and it takes advantage of gravity. During the exercises, the back and the sacrum remain perfectly adherent to the supporting planes, determining a perfect stretching of all the back muscles.



This exercise is excellent for lumbosacral area problems. It is enough to keep the position and breathe with your mouth; after a while you will feel the tensions.

This other exercise shows how it is possible to work through feet on pubalgia and arthrosis of the hip. Results are guaranteed.



This exercise is useful to stretch arms muscles, but it works also on latissimus dorsi. If you do it frequently, it is great in the treatment of herniated disc.

What we stated is not something made up to speculate on patients, but it comes from real practice, from our everyday work. The results made it possible to verify the efficacy of this new working approach.

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

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