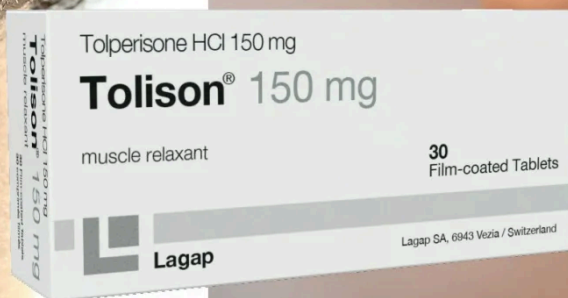


unequalled well-being



when pain has no place
in active life



Tolison
tolperisone

Lagap SA, 6943 Vezia / Switzerland

Contracture, muscle soreness, sciatica, lumbago: what are the indications of muscle relaxants?

First of all, it should be pointed out that in the case of myalgia, i.e. muscle pain, it is essential to know the cause and origin before trying to treat it!

Muscle pain may be the symptom of a serious pathology, which must be treated first.

Generally speaking, muscle relaxants are indicated in cases of :

extrinsic muscular lesions, i.e. those resulting from a shock caused by a third party. This type of injury accounts for only 10% of muscle injuries;

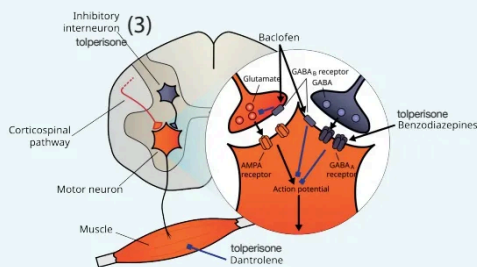
intrinsic muscular injuries: the muscle itself is responsible for the injury, through excessive traction, usually eccentric. Intrinsic muscular lesions are in the majority, accounting for 90% of muscular lesions;

DOMS or Delayed Onset Muscle Soreness: `

This is a muscle soreness that is much more severe and painful than a normal muscle soreness, and generally appears 12 to 48 hours after physical exercise', explains Dr Miniot; lower back pain, sciatica, cervicobrachial pain, for which muscle relaxants are usually combined with painkillers and anti-inflammatories.

How do muscle relaxants work?

They act at the synapses of the neurons in the muscle, by acting on GABA (gamma aminobutyric acid). This neurotransmitter works by inhibiting nerve impulses, leading to muscle relaxation and therefore a reduction in basic muscle tone.



Mechanism of action of tolperisone

Tolperisone is a centrally acting skeletal muscle relaxant that acts at the reticular formation in the brainstem(3) by blocking voltage-gated sodium and calcium channels.

Pharmacokinetics of tolperisone

Tolperisone is absorbed nearly completely from the gut and reaches its peak blood plasma concentration after 1.5 hours. It is extensively metabolised in the liver and kidneys. The substance is excreted via the kidneys in two phases; the first with a half-life of two hours, and the second with a half-life of 12 hours.

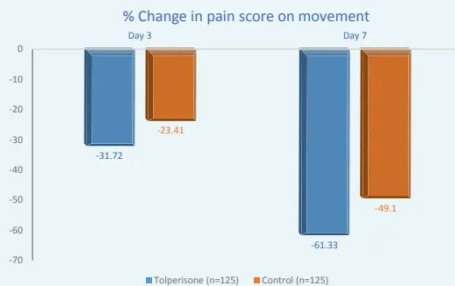
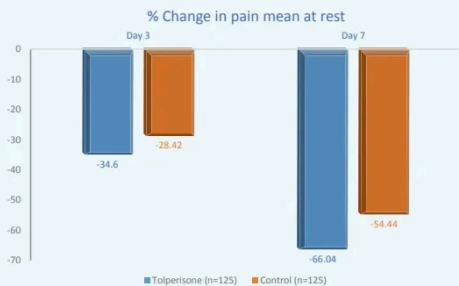
Tolison® the ideal therapy tolperisone for active people

In a randomized, double-blind, placebo-controlled, multicenter study with parallel groups. Treatment lasted 12 weeks with variable titrations (dose range 300-900 mg tolperisone daily).



Course of walking endurance on a smooth horizontal surface for 2min in the ITT population (tolperisone: n=43; placebo: n=51). Study demonstrated the efficacy and excellent tolerance of tolperisone in treatment of spastic hypertonia following cerebral stroke (4)

Tolison® a quiet force tolperisone



In a multicentric, randomized, comparative clinical trial, eligible patients were randomly assigned to receive 150 mg of Tolperisone thrice daily or 8 mg of Thiocolchicoside twice daily for 7 days. In conclusion, Tolperisone is an effective and well tolerated option for treatment of patients with skeletal muscle spasm associated with pain. (5)

Over a short treatment period (7-8 days), Tolison has shown no notable side effects, such as drowsiness, interactions with NSAIDs or alcohol. The most frequent side effects include: digestive disorders, skin rashes and hypotension associated with dizziness.

Stamenova P, Koytchev R, Kuhn K, et al. A randomized, double-blind, placebo-controlled study of the efficacy and safety of tolperisone in spasticity following cerebral stroke. *Eur J Neurol*. 2005;12:453-461.

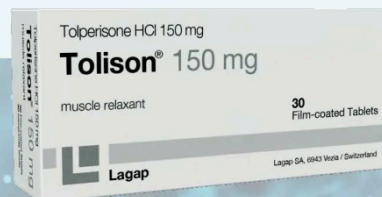
Rao R, Panghate A, Chandanwale A, et al. Clinical comparative study: efficacy and tolerability of tolperisone and thiocolchicoside in acute low back pain and spinal muscle spasticity. *Asian Spine J*. 2012;6:115-122.

Tolison® a quiet force

tolperisone

- ☐ **effective against muscle pain as**
 - painful reflex muscle spasm associated with diseases of the spinal column or proximal joints.
 - painful skeletal muscle spasticity associated with neurological
- ☐ **no interaction with alcohol and other drugs**
(except benzodiazepines)
- ☐ **has little or no impact on alertness**

Tolison® the ideal therapy tolperisone for active people



- ☐ **fast action**
- ☐ **a good alternative to NSAIDs** recommended indications
- ☐ **muscular pains, sprains, strains during sports activities**
- ☐ **neuromuscular spasticity after false moves or accidents**

Posologies

Adults: one tablet of 150 mg Tolison three times a day (a daily dose of 450 mg).
In known difficult cases a dosage of four times a tablet at 150 mg
(daily dose of 600 mg) can be used.

Children above 20 kg: initial recommended dose is 75-100 mg daily, divided into
3 to 4 doses and may be progressively increased to 150, 200, then 300, occasionally
to 450 mg/day be progressively increased to 150, 200, then 300, occasionally to 450 mg/day.

Children below 20 kg: start with 5 mg/kg daily, divided into 3 to 4 doses, and to
progressively increase the dose by 5 mg/kg every 5-7 days, up to 15 mg/kg daily.