

This condition causes muscular pain which can be relatively widespread.

Pain is caused by nodules (knots) causing areas of irritation in the muscle or fascia associated with the muscle (myofascia is a thin, virtually translucent film wrapped around muscle); these are known as trigger points (TrP), which are areas of irritation within extremely tight bands of muscle and or fascia..

TrPs can occur anywhere in the body and can result from over-use of muscles and/or muscle spasm (note: they are not the same as the tender points in Fibromyalgia).

The symptoms can often arise when the muscle is chilled. The pain may not remain localised, but can radiate to surrounding areas.

Latent TrPs do not hurt unless pressed, whereas 'active' TrPs trigger a referred pain pattern in the body, and often other symptoms in the 'pain zone'. Tension TrPs may occur if the muscles are continually held taut, which can often occur in unrelieved pain.

TrPs render muscle strength unreliable. This can cause difficulties such as with handwriting.

There is a red zone in which TrPs are particularly likely to occur. This covers a rectangular area from the neck to the buttocks.

Structural instability of the lower spine and pelvis can be a cause of MPS in the buttocks/hips.

Once established, this sort of problem can lead to symptoms even from stimulus such as lying on the affected side for a sustained period of time (say overnight).

The gluteus medius, one of the buttock muscles, can become shortened and this can make it more prone to develop TrPs.

The affected area may also go numb.

Another common area affected can be in the upper back over the shoulder blade (scapula) area that is caused by trigger points in the trapezius muscle, which runs up the side of the neck.

TrPs in the sternocleidomastoid (SCM) muscle complex in the neck can cause dizziness, ringing in the ears and loss of balance. A common symptom of SCM TrPs is a 'drunken walk', and bumping into doorways and walls. Headaches are also often related to TrPs.

TrPs may refer burning, prickling or lightening-like pain; this can occur with nerve entrapment by affected muscles; of course, it may mimic or exacerbate nerve pain arising at a spinal level. The result is a highly confusing mixture of problems.

TrPs are also found in joint capsules and ligaments, and in periosteum ( the tissue around bones): the latter can cause autonomic reactions such as sweating.

Secondary trigger points develop when a muscle is subjected to stress because another muscle which has a TrP is not working properly.

Satellite TrPs occur when a muscle is in the pain zone of another TrP.

These 2 types may lead to widespread and severe pain and can give the false impression that

MPS worsens over time.

In fact, MPS is a purely mechanical condition which is not progressive and with proper intervention, TrPs can be broken up and eliminated. However, this requires expert treatment from practitioners such as Chiropractors.

Autonomic manifestations of myofascial pain:

- vasomotor: blood vessel constriction: causing an area that is cold to the touch
- pilomotor: goosebumps in the affected area

**Matchstick test:** firm indentations made with the blank end of a matchstick in the affected area will take longer to disappear than in unaffected areas. (source: Myofascial Information Network, Washington, USA)

Perpetuating factors for MPS include:

- Metabolic problems such as diabetes or reactive hypoglycemia (RHG)
- Paradoxical breathing is a major perpetuating factor, and it is often overlooked. The abdomen should expand when breathing in, and go in when exhaling. Paradoxical breathing is shallow breathing, and causes oxygen starvation.
  - Anything which cuts down the available oxygen to the muscles: e.g. anaemia, or even a simple mechanical factor, such as tight clothing.
  - Poor posture and poor body mechanics: ask your physiotherapist to help you learn how to turn in bed, get up from lying down, and get up from sitting, without stressing your body
  - Turning in bed the wrong way. The best way to turn is to roll with the head flat on the pillow, using the arms to help turn. Lifting the head and "leading with it" is likely to cause problems.
  - Sole pain with first steps in the morning can be relieved by rolling up a large towel and putting it under the covers at the bottom of the bed, to keep the feet in a neutral position.
- Lack of restorative sleep
- Previous surgeries or physical traumas can create adhesions and weak areas which are susceptible to TrP formation; loss of mobility in these areas is also a problem.
  - using a heavy shoulder bag
  - smoking
  - drinking too much alcohol

- staying up too late or getting up too early
- keeping irregular hours
- failure to pace activities appropriately
- Anything which causes muscles to be held in a tightened or unnatural condition over a sustained period of time; repetitive action
- Anxiety, grief, depression
- chronic pain
- Spring and Autumn, with more rapid temperature, moisture and barometric extremes.
- Draughts: avoid sitting under air conditioner or heater ducts.

**FMS/MPS COMPLEX:**

**This is a 'double whammy': MPS is a pain condition and FMS is a pain amplification condition: it is synergistic: the whole is greater than the sum of its parts.**