# Myofascial Trigger Points and its Influence on Athletic performance- A Review

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## Abstract

The existing published material on myofascial pain syndrome in athletes and sedentary populations was compiled in this research. This is a Musculoskeletal disorder, caused by the presence of trigger points, called myofascial trigger points. The objective of the study is to update an overview of the influence of myofascial trigger points on athletic performance. A search of multiple databases was used in order to gather review information. Myofascial pain syndrome, myofascial pain, trigger points, muscle pain, myofascial release, and a combination of these terms were searched. The titles and abstracts of all articles were reviewed. Our research included reading the full texts and checking the reference lists of relevant papers. And it was found that in the general population myofascial pain syndrome is a common disorder. Reduced flexibility and strength—are associated with myofascial trigger points and cause referred pain, motor dysfunction, and autonomic symptoms when compressed. As a result, this condition can have a severe influence on athletic performance as well as a sedentary lifestyle. Myofascial trigger points might have a deleterious impact on neighboring soft tissues, these negative effects can then be transmitted to distant tissues via the myofascial chain, resulting in the referred pain and dysfunction of muscles. However, on this subject of sports and exercise, little study has been done. According to the researchers, understanding and developing the topic of fascia research in practical training-oriented sports programs is crucial for establishing an injury-resistant and elastic fascial body network.

**Keywords-** Myofascial pain syndrome; myofascial trigger point; MPS; musculoskeletal disorders

**DOI Number: 10.48047/nq.2022.20.19.NQ99043 NeuroQuantology2022; 20(19):467-483**

**Introduction**

Myofascial pain syndrome (MPS) is one of the most common musculoskeletal disorders (Das & Jhajharia, 2022), it is defined as a regional pain syndrome and features by the presence of myofascial trigger points (MTrPs). Trigger points (TrPs) are hyperirritable sites embedded in taut bands of skeletal muscle, and they are a common musculoskeletal problem (Devereux et al., 2019; Khanittanuphong & Upho, 2020; Rozenfeld et al., 2020). Associating local and/or referred pain patterns as well as autonomic, motor and/or sensitive signs and symptoms(Mayoral del Moral et al., 2018; San-Antolín, Rodríguez-Sanz, López-López, Romero-Morales, Carbajales-Lopez, Becerro-de-Bengoa-Vallejo, et al., 2020) on palpatory examination. TrPs are tender, firm nodules measuring 3–6 mm in diameter (Donnelly & Simons, 2019) in size. Long-term or inconsistent training, low-load repetitive muscular activity, chronic and acute mechanical and electrical damage, persistent stress, and prolonged ischemia can all damage myofibrils and promote the formation of latent MTrP (LMTrPs)(Ge & Arendt-Nielsen, 2011). These TrPs are a typical cause of musculoskeletal pain (Ibrahim et al., 2021; Tabatabaiee et al., 2019). According to Waller et al., up to 85% of people have experience this once or twice in their lives (Ransone et al., 2019). According to studies, 54 percent of women and 45 percent of men are thought to be affected by MPS, with the most prevalent age group being 27 to 50 years (Cheatham et al., 2018). In the field of sports and exercise science it was found that almost 80% of sports-related injuries are musculoskeletal in origin (Patel & Baker, 2006), There is evidence to suggest that myofascial pain accounts for 85% of muscular pain resulting from injury (Wheeler, 2004), and muscle injuries are common in professional sports (Haser et al., 2017), therefore, authors suggested MPS should be considered as a potential cause of musculoskeletal pain (Saxena et al., 2015). In order to treat it effectively, a thorough evaluation and a tailored treatment approach are needed (Barbero et al., 2019). A number of factors contribute to muscle injury, including tight muscles, past muscle injuries, age, strength inequalities, reduced flexibility, fatigue, previous osteitis pubis or knee injuries, and a high BMI. TrPs in the myofascial system are associated with muscle tightness and reduced flexibility and strength (Fousekis & Kounavi, 2016; Haser et al., 2017). Athletes who were suffering from injuries not only have decreased physical performance, but they also affected psychologically. A positive correlation has been found between MPS and active MTrPs and psychological factors (San-Antolín-Gil et al., 2022). In most of the studies it was observed that in 5 out of 1 college athletes may be depressed due to injuries (Palisch & Merritt, 2018). Currently, researchers studying athlete's depression, found that the rate of depression among athletes ranged between 15.6% and 21% (Proctor & Boan-Lenzo, 2010; San-Antolín, Rodríguez-Sanz, López-López, Romero-Morales, Carbajales-Lopez, Becerro-de-Bengoa-Vallejo, et al., 2020). In order to tackle with the musculoskeletal related problem, it is not enough to focus on only muscular tissue, but also build a resilient and elastic fascial body network, researchers recommend understanding and incorporating fascia research into training-oriented sports programs. Exercise specialists, physical therapists, sports trainers, and other movement experts are encouraged to integrate these principles into their practice according to their expertise and knowledge (Schleip & Müller, 2013).

As per a Chinese review article published in 2021, researchers have not been able to come to a consensus about the cause and pathogenesis of MPS. There are no unified diagnostic criteria for MPS because there are no specific laboratory or imaging indicators (Cao et al., 2021). There are very few articles are available on MPS in sports. Using the available literature, the goal of this study is to provide a general overview of MPS, pathogenesis of MPS, its prevalence in athletes, its effects on the sportsperson and reliable diagnostics criteria and proper treatment.

**Methodology**

A search of multiple databases was used in order to gather review information, including Google scholar, PubMed, ScienceDirect, BMC, Elsevier, Springer. Our key terminologies are Myofascial pain syndrome, myofascial pain, trigger points, tight muscles, muscle pain, myofascial release, and a combination of these terms were search on various databased. We gave preference to articles published in the last 22 years. The titles and abstracts of all articles were reviewed. Our research included reading the full texts and checking the reference lists of relevant papers. Articles were excluded if published as case studies, editorials, or expert opinion. Studies on MPS, MTrPs, active and latent MTrPs, Self-myofascial release, pressure pain threshold were included in this study, total 89 studies were included out of 159.

**What is fascia**

Fascia is one of the most important components of connective tissue (Kumka & Bonar, 2012; Skinner et al., 2020). A fascia, as described by Schleip and colleagues, consists of soft, fibrous, collagenous tissues that connect the body's tissues together (Benjamin, 2009; Schleip & Müller, 2013; Skinner et al., 2020) below the skin, are sheets of connective tissue called fascia and this fascia attached, stabilized, providing strength, maintained blood vessel patency, separated muscles, and encapsulated different organs (Grieve et al., 2015). The fascia is a dissectible membrane covering muscles, bones, and other organs of the human body that has been used by surgeons for centuries (Benjamin, 2009; Findley et al., 2012; Stecco et al., 2013). Gatt and colleagues in their recent book 'Anatomy, Fascia Layers' stated that, soft tissues made up of collagen and elastin, as well as those that make up and maintain extracellular matrix within the body, are considered fascia. It includes tendons, ligaments, bursae, endomysiums, perimysiums, and epimysiums as well (Gatt et al., 2021). Myofascia defined as “a dense irregular connective tissue that surrounds and connects every muscle, even the tiniest myofibril, and every single organ of the body”(Aboodarda et al., 2015). From the perspective that both muscle and fascia likely contribute to symptoms, this term has evolved into myofascial pain. "Fibrositis," an inflammatory condition associated with chronic muscle pain, was once listed under the term "fibrositis", myofascial pain has replaced these terms (Shah et al., 2015).

**Structure and Function**

Despite its passive appearance, fascia is actually an active structure. Supporting tissues and organs, reducing friction, and enabling the tissues and organs to function normally. As a result of its densely packed collagen bundles and tightly wrapped structure, fascia possesses strength. Fibers are generally oriented in a single direction in order to prevent the structure from becoming loose or lax. By contracting muscles, or by experiencing external forces, fascia can transmit mechanical tension. When in a healthy state, fascia is a flexible and wavy connective tissue that can lose its softness as a result of local injury or inflammation. As a result, fascial layers can become tight and restrict underlying tissues, resulting in pain, limited movement, and decreased circulation of blood flow. The fascia possesses a high degree of flexibility and resistance to tension. Fascia differ in their functions depending on their locations (Gatt et al., 2021).

**What is a Myofascial Pain Syndrome (MPS)**

TrPs are present within muscles and their fascia, which causes the MPS (Abu Taleb et al., 2016). Simons described a MPS as a "complex of sensory, motor and autonomic symptoms that are caused by MTrPs (Cygańska et al., 2022; Giamberardino et al., 2011). MTrP or TrPs are generally characterized by hyperirritable bands of taut muscle and are commonly encountered in many muscles (Celik & Mutlu, 2013; Grabowski et al., 2018; Tabatabaiee et al., 2019). Whether on their own or with the help of digital compression, TrP can produce referred pain. TrPs are renowned for being painful areas inside a taut band of muscle. This is the clinical definition of TrPs. Clinically, MTrPs is classified as active and latent (Jiménez-Sánchez et al., 2021; San-Antolín, Rodríguez-Sanz, Vicente-Campos, Palomo-López, Romero-Morales, Benito-de-Pedro, et al., 2020; Wang et al., 2010). MTrP that do not cause pain are known as latent MTrPs (LMTrPs) (Cygańska et al., 2022; Ge & Arendt-Nielsen, 2011). LMTrPs can be accompanied by movement deficiency and also reduce muscle strength (Walsh et al., 2019) and a malfunctioning reciprocal inhibition mechanism, as well as muscle overuse. Further, LMTrPs increases the risk of patellofemoral pain syndrome and postmeniscectomy pain or knee osteoarthritis (Zuil-Escobar et al., 2016), tension headache, shoulder pain, and mechanical neck pain (Tabatabaiee et al., 2019). The symptoms of an active MTrP (AMTrPs) include persistent pain, muscle weakness, decreased muscle elasticity, and referred pain (Ibrahim et al., 2021). Though LMTPs are not responsible for the impulsive pain as the AMTPs are experienced by an individual, they may influence the muscle to further damage and easily can be altered into active MTPs under the influence of perpetuating factors in patients with chronic musculoskeletal pain conditions (Ge & Arendt-Nielsen, 2011). Fascial restrictions in one part of the body can cause undue tension in other portion of the body due to continuity of the fascia. An area encased, divided, or supported by fascia can be affected by a fascial restriction (Thummar et al., 2020).



eISSN 1303-5150

**Table-1 MTrPs in different muscles (2018-2022)**

| Muscles | Authors |
|---|---|
| Posterior Neck or Upper back | (Ransone et al., 2019) |
| Upper trapezius | (Kamali et al., 2019); (Tabatabaiee et al., 2019) (Khanittanuphong & Upho, 2020);(Sánchez-Infante et al., 2021); (Bethers et al., 2021);(Srikaew et al., 2022) |
| Deltoid, | (Ortega-Santiago et al., 2020) |
| Supraspinatus | (Ortega-Santiago et al., 2020) |
| Infraspinatus, | (Ortega-Santiago et al., 2020) |
| Latissimus dorsi | (Ortega-Santiago et al., 2020) |
| Teres Minor, | (Ortega-Santiago et al., 2020) |
| Teres Major, | (Ortega-Santiago et al., 2020) |
| Pectoralis Major | (Ortega-Santiago et al., 2020) |
| Pectoralis Minor | (Ortega-Santiago et al., 2020) |
| Lumbar Erector Spinae Muscle | (Rodrigues et al., 2021) |
| Gluteus Medius | (Rozenfeld et al., 2020) |
| Quadriceps | (Walsh et al., 2019) |
| rectus femoris, | (Rozenfeld et al., 2020) |
| vastus medialis, | (Rozenfeld et al., 2020) |
| vastus lateralis | (Rozenfeld et al., 2020) |
| Gastrocnemius | (Albin et al., 2020);(San-Antolín, Rodríguez-Sanz, Becerro-de-Bengoa-Vallejo, Losa-Iglesias, Casado-Hernández, et al., 2020);(Pérez-Bellmunt et al., 2021) |
| plantar fascia | (Martínez-Jiménez et al., 2020) |
| Soleus | (Jiménez-Sánchez et al., 2021) |



**Table no. 1** shows that trapezius muscle (Abu Taleb et al., 2016; Celik & Mutlu, 2013; Sciotti et al., 2001) in the upper body is most susceptible to occurrence of MPS and in the lower body gastrocnemius muscle. This is observed from the article which are published between 2018-2021.

**Theories of trigger points (TrPs)**

The most popular credited concept for primary TrPs development is the “Integrated hypothesis”, given by Mense and Simons (2001). The main disfunction of a TrP would include of an irregular construction and release of acetylcholine (Ach) packets from the axon terminal under resting circumstances. The muscle fibre's post junctional membrane depolarizes and as sustained releases of Ach from the motor endplate. This might be the source of continuous calcium ion release and insufficient absorption from the local sarcoplasmic reticulum, resulting in sarcomere shortening. If the problem persists, a vicious cycle develops, with hypoxia leading to the production of vasoactive and algogenic chemicals, which cause local nociceptors to become sensitised, resulting in local hypersensitivity to pain. Hypoxia also produces a disparity in the generation of energetic molecules like as ATP, resulting in a failure re-uptake of Calcium ions into the sarcoplasmic reticulum – that is an active process that requires energy and a persistence of local sarcomere contracture with continued hypoxia. Until disrupted, this cycle is self-sustaining and leads to the creation of TrP (Fricton, 2016). Integrated TrPs hypothesis assumes that there is an energy crisis in the muscle; the energy crisis theory is based on three key properties of contractile muscle fibre bundles: 1) there are no other action potentials 2) the fibre bundles are locally sensitive to pressure, 3) if the TrP is inactivated there is an immediate relaxation and decrease in tenderness. A local physiological contracture, without the effect of the electrical activity of motor neurons, reason of increased metabolic rate and ischaemically induced hypoxia. This is caused by continuous maximum activity and an increased energy requirement (Aoki et al., 2010; Bennett, 2007; Weller et al., 2018).

**Do athletes develop MTrPs?**

MPS is a common disorder in general medical practice (Chiu et al., 2020) but in the field of sports and exercise this area did not explore much. Few research studies are available. In 2019 Pedro, et al. published a article and they mention a MPS may develop as a result of overstraining a muscle and disrupting its normal recovery pattern. In addition, it may occur if a weak muscle is overloaded in an attempt to perform a normal activity without preparing the muscle for it. MPS is caused primarily by repetitive microtrauma and muscle overload, which may explain the high rate of injury in triathlon (Benito-de-Pedro et al., 2019). Prolonged or unaccustomed exercise, low-load repetitive muscle work, acute and chronic mechanical and electrical trauma, sustained stress, and prolonged ischemia may lead to muscle cell damage and initiate the formation of the LMTrPs (Ge & Arendt-Nielsen, 2011). Researchers Kisilewicz and colleagues investigated the effect of compression trigger point therapy in 12 professional basketball players, they able to successful reduced the muscle stiffness. The authors stated in their article that MPS which is featured by MTrPs can be developed with any type of sports training and performance (Kisilewicz et al., 2018). Fousekis et.al compare between Ischaemic pressure technique and instrument-assisted soft tissue mobilization effective for treating AMTrPs in the low back region of amateur soccer players. They found that those soccer players who overload the region of hip areas they developed MTrPs in low-back and gluteal region. And they mentioned in their article that MTrPs are common problem in athletes (Fousekis & Kounavi, 2016). Among all the muscles in the human body that may develop TrPs, the gastrocnemius muscle may be deemed the most susceptible. TrP may affect sport performance in 13% to 30% of the asymptomatic population who have LMTrPs (San-Antolín, Rodríguez-Sanz, Becerro-de-Bengoa-Vallejo, Losa-Iglesias, Casado-Hernández, et al., 2020). There are various causes of MTrPs, such as sports injuries or muscle imbalances, postural deficiencies, or repetitive injury and training overloading. Evidence to date reinforces the theory that MTrPs develop after muscular overuse and especially after eccentric overloading and submaximal-maximal concentric contractions (Fousekis & Kounavi, 2016). From the research evidence it was observed that the knee joint is one of the most complex joints of the human skeletal system, as a result of its anatomical position and complexity, it is easily injured, especially when participating in sport (Das et al., 2021; D'Lima et al., 2012; Nicolini et al., 2014). It is estimated that nearly 25% of knee injuries in athletes are caused by patellofemoral or anterior knee pain (AKP). There are several studies that have shown the association between MTrPs and other knee complaints (Rozenfeld et al., 2020). A group of researchers mention in their article that myofascial injuries represent approximately 15% of all rectus femoris injuries in professional football players (Kassarjian et al., 2012). Shoulder pain is amongst the most common musculoskeletal disorders in overhead athletes such as throwers, swimmers, and tennis, baseball and volleyball players. Repetitive overhead throwing motions, altered movement patterns of the shoulder, scapular dyskinesis, insufficient rotator cuff performance, and poor posture are the most important causes of shoulder disorders in overhead athletes. Regardless of etiology, shoulder injuries may overload the shoulder girdle muscles and give rise to the development of MTrPs (Kamali et al., 2019). In a recent study, central sensitization, catastrophism, rumination, magnification, and helplessness were all linked to the presence of gastrocnemius myofascial pain in a group of 20 athletes (San-Antolín, Rodríguez-Sanz, Becerro-de-Bengoa-Vallejo, Losa-Iglesias, Casado-Hernández, et al., 2020). Therefore, assessment and management of these TrPs can be crucial for athletes (Pérez-Bellmunt et al., 2021). From above mention discussion it was clear that the MTrPs can be developed in athletes. Thus, focusing on this fascial network can be of great benefit to athletes, dancers, and other movement enthusiasts. It is possible to rely on the fascial body to perform effectively and at the same time to prevent injuries if it is well-trained, that is to say, it is optimally elastic and resilient (Schleip & Müller, 2013).

**Effect on sports performance**

A palpable taut band or patch within a skeletal muscle is indicative of MTrPs (Barbero et al., 2013). The local inflammation induced by MTrPs might have a deleterious impact on neighbouring soft tissues, resulting in muscle and fascia dysfunction. These negative effects can then be transmitted to distant tissues via the myofascial chain, resulting in the referred pain. As a result, the existence of MTrPs is regarded as the earliest symptom of a muscle's overloading (Kisilewicz et al., 2018). Eccentric hamstring muscle exercise, those with stiffer hamstring muscles had more strength loss, discomfort, muscular soreness, and a higher creatine kinase rise. These effects are related to changes in sarcomere mechanics in stiff and compliant muscles during eccentric movements (McHugh et al., 1999). Motor activation patterns and reciprocal inhibition mechanisms are affected by LMTrP, leading to joint movement limitation and overload. MTrP is strong associated with gluteus medius abduction strength values of less than 9.7 kg with a low specificity and high sensitivity (Bagcier et al., 2022). Direct or indirect trauma, cumulative and repetitive strain, postural dysfunction, and physical deconditioning can all cause myofascial pain and dysfunction (Wheeler & Aaron, 2001). Muscles get exhausted as a result of the MTrPs, making them more sensitive to the activation of additional trigger sites (Ge & Arendt-Nielsen, 2011). Thus, negatively impact the sports performance. Apart from the physical disadvantages the MPS has psychological impacts research evidence shows that Greater **depression** symptoms and levels were exhibited for athletes with gastrocnemius myofascial pain compared to healthy athletes. According to new research on athletes and depression, the rate of depression among athletes is high, ranging from 15.6 to 21%, and relevant risk factors such as involuntary career discontinuation, performance expectations, possibly overtraining, injuries, or muscle conditions may all contribute to depression among athletes (San-Antolín, Rodríguez-Sanz, López-López, Romero-Morales, Carbajales-Lopez, Becerro-de-Bengoa-Vallejo, et al., 2020). **Greater kinesiophobia** and **fear avoidance beliefs** were shown for athletes suffering from gastrocnemius MPS compared with healthy athletes (San-Antolín, Rodríguez-Sanz, Vicente-Campos, Palomo-López, Romero-Morales, Benito-de-Pedro, et al., 2020). Neuroticism and anxiety also found in athletes suffering from gastrocnemius active MTrPs (San-Antolín, Rodríguez-Sanz, Becerro-de-Bengoa-Vallejo, Losa-Iglesias, Martínez-Jiménez, et al., 2020). There is a significant gap in the research regarding the impact of LMTrPs on athletic performance, particularly in the lower limb (Walsh et al., 2019). Therefore, it is become very essential for the coaches, sports trainer and movement expert to explore this area.

**Diagnostics Criteria**

Gerwin et al. According to them, palpation is the only method which can diagnose myofascial pain (Gerwin & Shannon, 2000), but Researchers Lucas and colleagues concluded that physical examinations are currently not reliable tests for diagnosing TrPs. Current diagnostic criteria must be validated using high-quality clinical trials in clinically relevant patients in order to determine the reliability of determining the exact location of TrPs (Lucas et al., 2009). In the year of 2020 an article published and researchers observed that “spot tenderness” (hypersensitive spot/ nodule, taut band, or tender spot in a taut band), “referred pain,” and “local twitch response” were the 3 most popular criteria, as well as the combinations applied most frequently. As a consequence, defining diagnostic criteria alone is insufficient, and future research should clarify the necessary physical examinations and standardize them (Li et al., 2020). According to literature research, pressure algometers have become a cost-effective, reliable, and clinically feasible tool for enhancing myofascial pain diagnosis and management. In the evaluation of MPS and various musculoskeletal conditions, pressure algometry has been widely used. Patients with MPS were required to meet pressure pain thresholds, for example, When the pressure pain threshold on one site of a patient was at least 2 $kg/cm^2$ lower than that on the opposing site, it was considered abnormal. Recent years have seen the adoption of digital pressure algometers, and computer-controlled pressure algometers are being developed (Hong, 1998; Park et al., 2011). In order to diagnose tender spots and assess treatment outcomes, pressure algometry measurement has been suggested as an accurate, valid and reproducible method (Aboodarda et al., 2015; Cordeiro et al., 2021). Muscle nodules and tissue layers are often assessed by ultrasound according to their thickness and consistency. In some studies, TrPs were analysed using ultrasound elastography by doppler variance imaging while a handheld vibrator was used to induce vibrations. There is a decreased vibration amplitude associated with myofascial trigger points, which appear as focal and hypoechoic nodules (Behr et al., 2020; Srbely et al., 2016).

**Treatment**

Different therapy, like as exercise and TrP injections, have proved successful in treating myofascial pain (Dommerholt et al., 2006), posture correction, addressing perpetuating factors, tricyclic antidepres IASTM, muscle relaxants, and other medications (Urits et al., 2020). Several studies and clinical trials have shown that Myofascial treatment is effective in reducing myofascial pain increasing range of motion improving functional disability and pressure pain and getting changes in both deep fascial motion and muscle stiffness threshold (Martínez-Jiménez et al., 2020). Mixed results regarding muscle performance and the use of self-myofascial devices have been previously reported. Together, these investigations seem to suggest that the positive effects of Foam roller on performance are protocol duration-dependent, with larger effects being observed in protocols adopting 90 seconds of foam roller or roller massager use per muscle group (3 sets of 30 s) and no effects with protocols shorter than 30 seconds (DE Camargo et al., 2021). Instrument-assisted soft tissue mobilisation (IASTM) and cupping treatment are two procedures that are fast gaining popularity among athletes because to their efficacy and efficiency in treating soft tissue constraints while staying non-invasive (Fousekis & Kounavi, 2016). In comparison with Positional Release Technique and Ischaemic compression technique, the In patients of MPS with AMTrPs, ischaemic compression had clinically meaningful improvements in terms of improving pain pressure threshold (P.Nikam & Varadharajulu, 2021). Providing repeated stimulation is another way to treat painful muscles. Massage, acupuncture, and ultrasonography are all non-invasive ways to neutralise TrPs by mechanical disruption (Urits et al., 2020).



**Discussion**

From the observation of the review related literature, we found that Surgeons have long been interested in fascia, and paramedical practitioners such as manual therapists, osteopaths, chiropractors, and physical therapists believe it to be extremely important. Myofascial wraps and encases muscles, producing connective strands that extend from the skull to the toes, and fascia is a crucial component of connective tissue. Its plays an important role in transmitting mechanical forces between muscles and also range of motion thus it is essential to maintain the facial network in the human body. MPS caused by TrPs, and that is hyperirritable regions into tight bands of skeletal muscle, correlating local and/or referral pain patterns, as well as autonomic, motor, and/or sensitive signs and symptoms, are all common musculoskeletal conditions. The reason behind these musculoskeletal conditions given by the researcher that are overuse injury, acute injury, poor posture, abnormal release of acetylcholine, the most popular energy crisis theory etc. therefore it is a very important aspect for every individual to know about the prevention and treatment of MPS. Though in general clinical practice the MPS is explored. According to the research most susceptible muscles in lower body is gastrocnemius and in upper body trapezius muscle and sedentary population. But in athletes MPS is overlooked, few research studies are available on sports field, but from previous published articles it is confirmed that MPS can be developed by any athletes in any kind of muscles. This MPS can harm an athlete's performance. Athletes not only restricted his physical performance but it also affects his psychology wellbeing Therefore, it is very essential to focus in this area and explore. And develop training programme to take proper prevention from MPS. To diagnosis MPS researchers mention various methods like physical examination, pressure algometer and ultrasound, among them pressure algometer consider most reliable.

**Conclusion**

These evidence-based resources will enable physiotherapists and sports therapists to raise the bar in clinical practice and provide value to general patients, athletes, and the healthcare system in India as well as across the globe. And that could become very effective for sports person to maintain their physical fitness and achieve lots of success in their field. This review article also provide knowledge to the sports person how to prevent, evaluate and take proper treatment for their fascial tissues.

**Financial support and sponsorship**

Nil.

**Acknowledgments**

There are no acknowledgments

**Conflicts of interest –**

The authors have no conflicts of interest to declare.

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