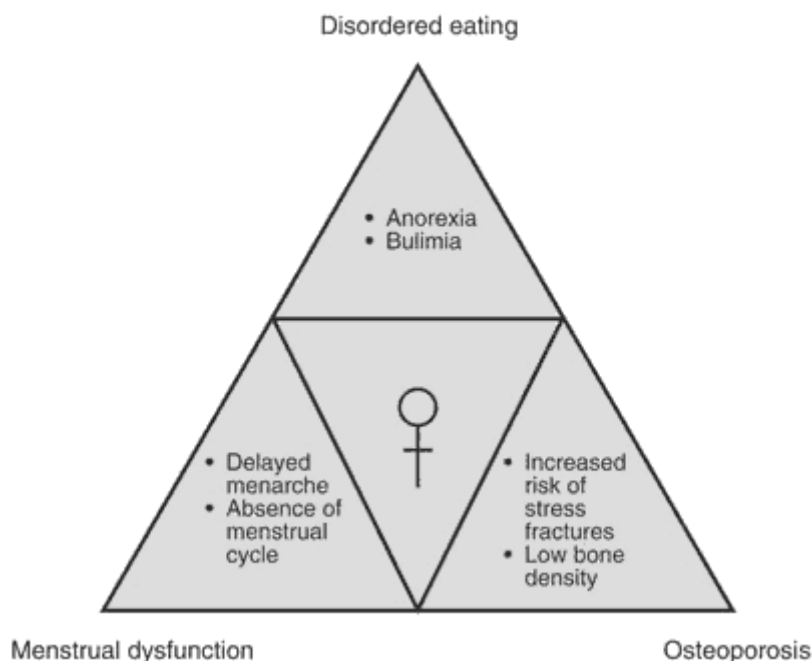


THE USE OF MASSAGE ON CLIENTS WITH FEMALE ATHLETE TRIAD (FAT)

By Lisa Lamont

The following text aims to explore the main factors involved in the female athlete triad, who is at risk from developing this disorder, why Sports and Remedial Massage Therapists should know about it and what we can do to help females suffering from this triad.

The female athlete triad is the presence of three (3) factors – disordered eating, amenorrhoea and osteoporosis. Disordered eating is the first symptom to develop; leading to amenorrhoea, which will lead onto the development of osteoporosis; unfortunately for these athletes, diagnosis is made in the reverse order. The female athlete triad (FAT) can occur in professional athletes as well as females who participate in recreational sports or fitness activities.



Sports that have more cases of this condition include long distance running, gymnastics, ballet, figure skating and dancing among other sports that focus on the aesthetics of the performance. Participants of sports such as boxing, which have weight categories, are also prone to developing one or all of the conditions involved in the triad.

It is believed that pressures placed on the athlete to look good and perform well from coaches, parents, media, societal emphasis on expected images and/or from sponsors, can cause an athlete to develop a distorted body image of themselves which can induce disordered eating and a fixation, or strong belief, that they are not good enough or lean enough.

Disordered eating will reduce the nutritional intake of the athlete, and combined with high intensities and volumes of training will reduce the athlete's body fat percentage. If body fat is reduced to extremely low levels, oestrogen synthesis will become compromised. Physical and/or psychological stress coupled with low body fat can distort the functionality of the hypothalamic-pituitary system which controls the secretion of oestrogens from the ovaries causing delay to the development of secondary female sex characteristics (if the athlete is pre-pubertal) and disruption to the normal menstrual cycle (oligomenorrhoea) or ceased menstrual cycle (amenorrhoea). The reduced oestrogen production results in poor calcium re-absorption potentially leading to osteoporosis.

Signs and symptoms which may be displayed in individuals include menstrual cycle irregularities; fatigue; low body temperature; dry hair; recurrent or multiple stress fractures or stress fractures in larger bones not commonly susceptible such as pelvis and lumbar vertebrae. Emotional stress such as a death of a close friend/family member or moving away from home, can also induce symptoms of the triad.

Sports and Remedial Massage Therapist have an advantage in detecting the signs and symptoms of the female athlete triad due to the screening process and detailed history taking in pre-treatment consultations, and also because athletes are one of the main groups of clients we deal with, especially those who have a history of injuries. Other relevant history with regards to this condition include: poor family/social support; high number of hours spent training per day – scheduled training and additional personal training, poor diet/low calorific intake, use of laxatives, diuretics or diet pills, high caffeine intake or smoking to suppress appetite.

Emotional and psychological stress, anger and anxiety all contribute to sustained muscular contraction and chronic overuse can cause a muscle to fail to relax after contraction. Such hypertonicity is a major contributor to the onset of pain. At the same time, depression can cause sustained weakness in other muscles creating imbalances and uneven forces across joints, leading to joint weakness and altered movement patterns of the joints concerned. These symptoms can be detected in an athlete's performance.

These symptoms are associated with female athlete triad, therefore massage can help to alleviate these musculo-skeletal dysfunctions restoring normal muscle and joint function, muscle energy techniques can be used to re-educate surrounding muscles to function in a normal manner again, as well as releasing any emotional stress being held in the muscles, potentially enabling the athlete to cope with her situation in a more healthy way.

In the case of an athlete who has suffered from stress fractures as a result of FAT, massage can assist in drainage of waste products, breaking down of scar tissue and helping scar tissue to lay down in alignment with the existing fibres and regaining normal range of movement and muscle function.

Depending on the location and severity of the fracture, the athlete should be advised to completely rest or reduce training by 25-50%. The athlete's mentality should be considered here as they may want to train harder, or return to training sooner, than recommended.

Parents and coaches need to be made aware of the symptoms of this condition if it arises in an athlete, as the long term effects of the female athlete triad can lead to debilitating effects such as irreversible reductions in bone mass density or scoliosis. It may be advisable to recommend counselling for an athlete suffering from the female athlete triad, as underlying psychological issues will need to be addressed.

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