ATHLETE HEALTH POLICY

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ATHLETE HEALTH POLICY

WHO IS IT FOR?

This document relates to the following groups.

- England Regional Squad
- England National Squad
- GB Climbing Squad
- GB Climbing Team

This document relates to the following disciplines.

- Lead
- Boulder
- Speed
- Combined

This document relates to the following categories.

- Senior
- Junior (U20)
- Youth A (U18)
- Youth B (U16)

GLOSSARY OF TERMS

Term	Definition
AAF	Adverse Analytical Finding
ADAMS	Anti-Doping Administration and Management System ('Whereabouts')
ADRV	Anti-Doping Rule Violation
AH	Athlete Health
AMS	Athlete Medical Services
BMI	Body Mass Index
BMC	British Mountaineering Council – National Governing Body of the Sport
CMO/AMO	Chief Medical Officer, in absence of this Advisory Medical Officer.
CPSU	Child Protection in Sport Unit
DTP	Domestic Testing Pool
DEXA	Dual x-ray absorptiometry (Bone Density Scan)
FAH	Female Athlete Health
GP	General Practitioner
Global DRO	Global Drug Reference online
HRT	Hormone Replacement Therapy.
IFSC	International Federation of Sport Climbing
MRI	Magnetic Resonance Imaging
MDT	Multi-Disciplinary Team
NRTP	National Registered Testing Pool
NSAIDS	Non-Steroidal anti-inflammatory drugs
PDMS	Performance Data Management System
RED-	Relative Energy Deficiency in Sport
SENR	Sport and Exercise Nutrition Register
SMHAT	Sport and Mental Health Assessment Tool
TASS	Talented Athlete Scholarship Scheme
TUE	Therapeutic Use Exemption
TFT	Thyroid Function Test
US	Ultrasound
WADA	World Anti-Doping Agency

ATHLETE HEALTH POLICY

1. PURPOSE OF THE ATHLETE HEALTH POLICY

1.1. The BMC is committed to prioritising the health and well-being of athletes throughout pathway programmes, recognising that physical and mental health is a priority in achieving holistic success.

1.2. This policy applies to athletes who have achieved selection to the GB or England Squad programmes activities. The objective is to promote athlete well-being, performance optimisation, and early identification of any health issues so that a support plan can be developed.

1.3. This policy ensures that the BMC aligns to the UK Sport Athlete Health standards.

2. PHYSICAL AND MENTAL HEALTH SCREENING

2.1. To ensure athlete health and wellbeing, athletes are required to cooperate fully during physical and mental health screenings, providing honest and accurate information about their medical and mental health.

2.2. All health screening information, including mental health assessments, is subject to strict confidentiality and will be shared only with authorised medical staff, coaches, or as required by law.

2.2.1. For UK Sport Funded Named athletes' medical records storage will be with UK Sport Athlete Medical Services through PDMS (Performance Data Management System), a medical records and health surveillance system.

2.2.2. For all other athletes' medical records will be held with own medical provider (NHS).

2.3. Under IFSC regulations a 'Fit to Compete' sign off from a medical practitioner is required by BMC to be able to issue an IFSC International competition license, (this includes a BMI screening).

2.4. Physical and mental health screenings play a crucial role in ensuring an athlete's well-being and readiness for activities, training, or competitions. These screenings help assess risk factors and determine support an athlete may require participating, prioritising their health and fitness and are not used as selection criteria.

2.5. Athletes failing to comply with this policy may be suspended from activities, training, or competitions until screening has taken place.

2.6. Overview of access to health screening services.

Screening Service	Athlete Group
Regional and England National Squad GB Squad (not selected for IFSC competition)	Self-Certification to confirm medical screening has taken place and BMI within normal range.
GB Team (selected to compete at International Competition) Non-UKS Funded/Named athlete	NHS or Private Medical Screening and letter confirming fitness to compete and BMI (where required for athlete international license issue).
GB Team (UK Sport Named/Funded)	UK Sport Athlete Medical Services (AMS)

**Please note TASS medical services do not cover routine monitoring or screening.*

2.7. UK Sport Funded Named Athletes:

2.7.1. Named athletes in receipt of an UK Sport APA funding must have the following physical and

mental health screens through the UK Sport Athlete Medical Service and this process will for fill the requirements for an IFSC competition license. Screening will include;

2.7.1.1. Physical Health Screening (including BMI Screening as per IFSC policy)
2.7.1.2. Mental Health Screening
2.7.1.3. Cardiac Screening
2.7.1.4. Physical profiling by physiotherapist in association with sport specific health risks

2.8. All other athletes competing in IFSC competition:

2.8.1. Athletes must contact their own medical services to and request a screening and confirmation (including BMI where applicable) that they are fit to compete and take part in training camps and competition activities.
2.8.2. It is advised that all athletes undergo cardiac screening. Please see CRY website for further information.

2.9. BMI Screening and Procedure and Policy (where applicable):

2.9.1. If through the athlete screening an athlete has a BMI measure that is a cause for concern by falling into the IFSC observation or critical zone the referral pathways will be followed as per section 3 of this policy.
2.9.2. IFSC procedures will be followed if the athlete is taking part in an IFSC international competition.
2.9.3. The purpose of using BMI as a critical marker is to work towards protecting athletes from the relative risk of Relative Energy Deficiency in Sport (REDs) as per the IOC RED-s Consensus Statement.
2.9.4. Please see Appendix 1 for further information.

2.10. Weighing Athletes

2.10.1. The BMC has a duty of care to safeguard the physical and mental health of athletes. The BMC recognise that weighing athletes' forms part of the BMI measuring processes as in section 2.9 of this policy but recognises that this in some cases may contribute to psychological distress, disordered eating, anxiety, and depression.
2.10.2. Athletes who take part in the pathway programs delivered by the GB Climbing department at the BMC must only be weighed as part of medical screening procedures by a qualified medical practitioner, see section 2.12.
2.10.3. Athletes who are UK Sport funded named programs may be weighed as part of sports science and nutritional support, by suitable qualified practitioners with a clear rationale and purpose.
2.10.4. Other than for health screening purposes the BMC does not consider there to be any significant advantages from weighing athletes.

2.11. Growth rate monitoring and Peak Height Velocity

2.11.1. The main measurement to assess growth rates is height, therefore this should be monitored.
2.11.2. If there is a concern regarding an individual regarding REDs or other physical or mental health concern, it should be raised as per the referral pathway (section 3).

2.12. Weighing procedures when required.

2.12.1. Weighing of athletes should only be undertaken with clearly documented reasoning, specific to that athlete, by a qualified practitioner such as an SENR sports nutritionist, dietician, or medical personnel.
2.12.2. Parent(s)/guardian(s) and/or the athlete must be provided with a copy of this policy (bringing to their attention the risks and best practice).
2.12.3. Explain and document why, for the individual athlete, the weighing of that athlete is necessary.
2.12.4. Consent from parent(s)/guardian(s) (if under 18) and/or athletes (if over 18) must be gained.

Parent(s)/guardian(s) and/or athletes have the right to refuse/withdraw consent at any time and must be made aware that this can be done without any consequence or disadvantage in selection if they refuse consent.

2.12.5. In the consent form, a clear explanation of the process and why the weight is being recorded, what will be done with the data and who the information will be released to.

2.12.6. Measurements must not be publicly displayed and must only be shared with stakeholders agreed on the consent form.

2.12.7. Weight measurement data should be recorded and stored in accordance with Data Protection and GDPR.

2.12.8. Athletes BMI may need to be logged in accordance with IFSC procedure requirements for NGB's. New IFSC procedures will be published in early 2024, at which point this policy may be updated to ensure alignment.

3. ATHLETE HEALTH REFERRAL PATHWAYS

3.1. Athlete health referral pathways are structured processes designed to guide athletes through the appropriate channels of care when they encounter health issues.

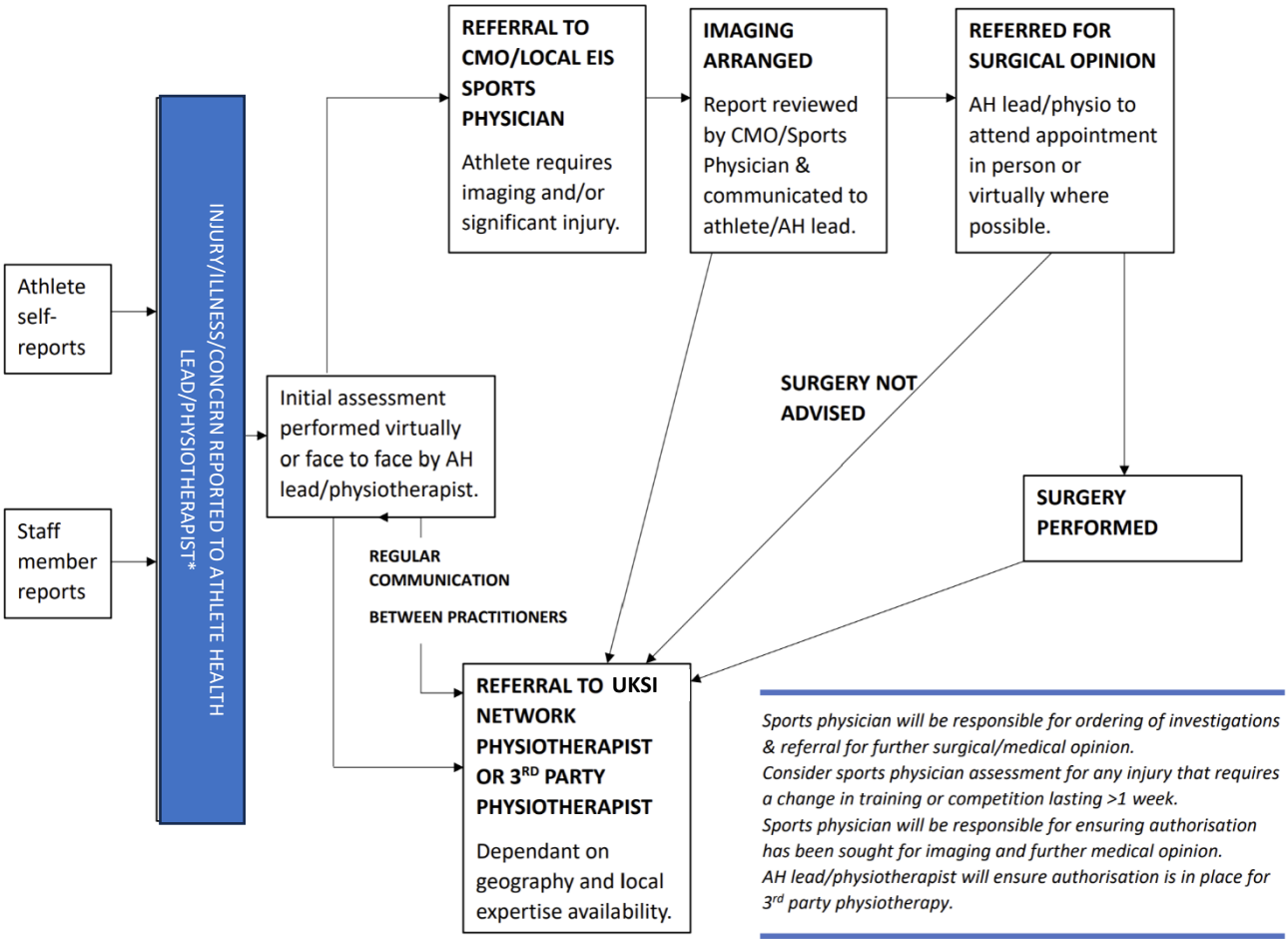
3.2. Referral pathways facilitate collaboration among different members of an athlete's support team, including coaches, trainers, and medical professionals. This ensures that everyone involved is informed and working together to optimize the athlete's health.

3.3. By identifying potential issues early and directing athletes to appropriate care, the severity of health problems may be reduced.

3.4. Athlete health referral pathways are supported through educational components (section 0) helping athletes understand their own health needs and empowering them to take an active role in their well-being.

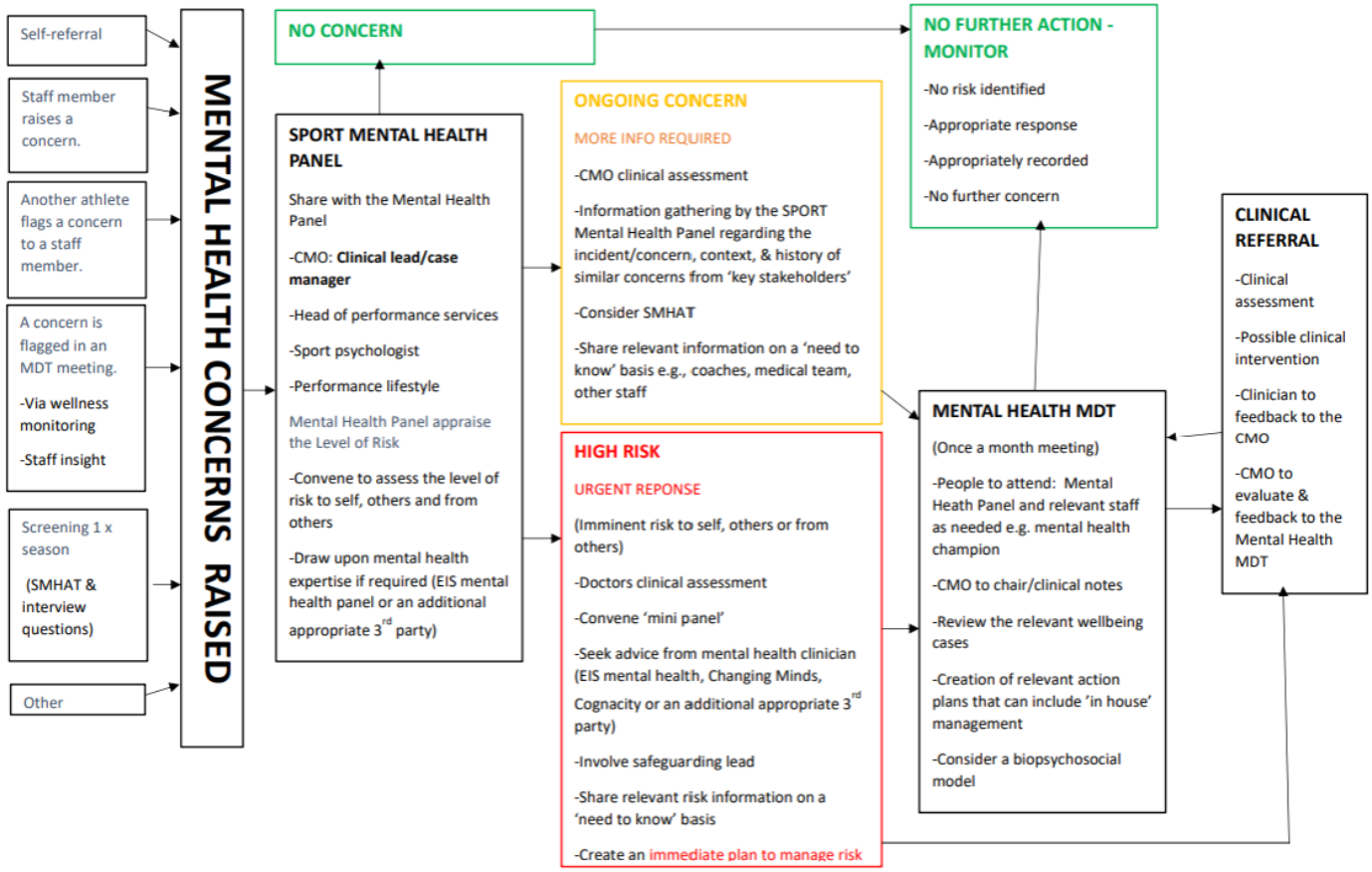
3.5. Athlete Health Referral Pathways for UK Sport Named (Funded) Athletes

3.5.1. Physical Health Concern Referral Pathway



** Recruitment of contracted Athlete health Lead TBC*

3.5.2. Mental Health Concern Referral Pathway



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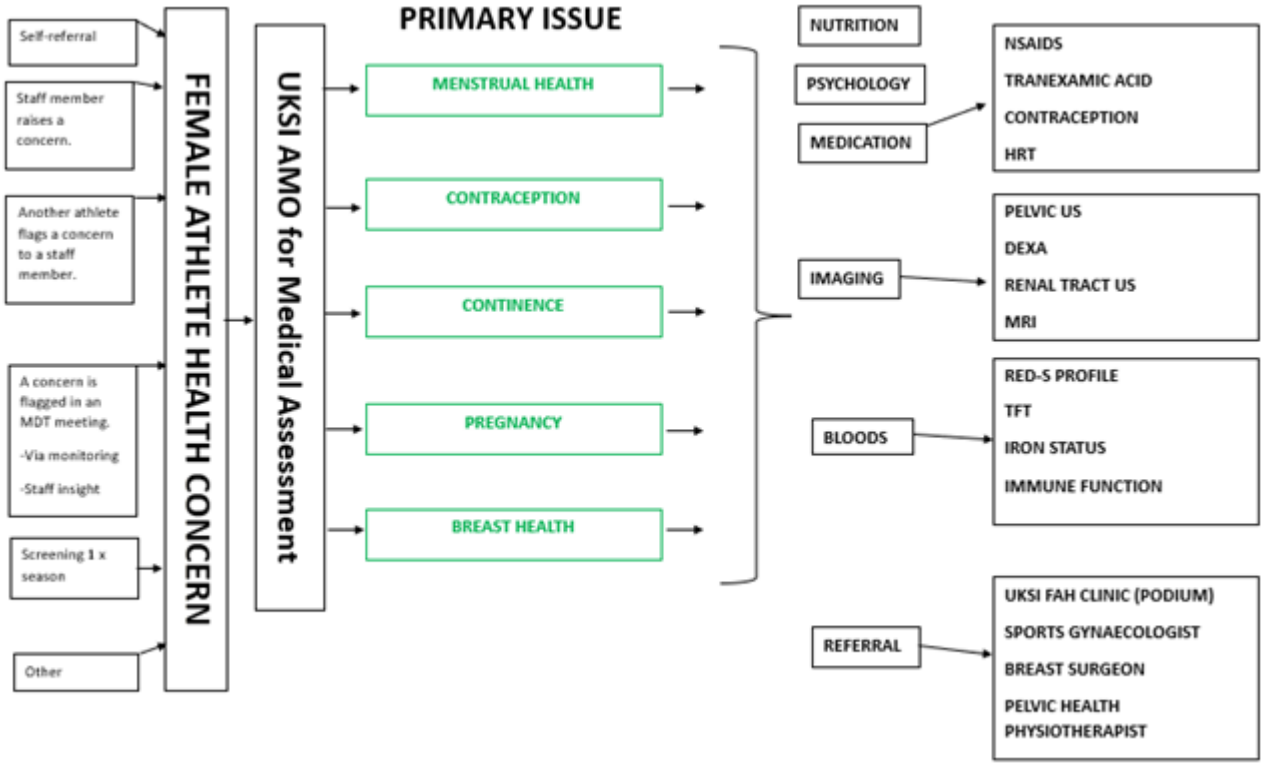
3.5.3. Female Athlete Health Concern Referral Pathway



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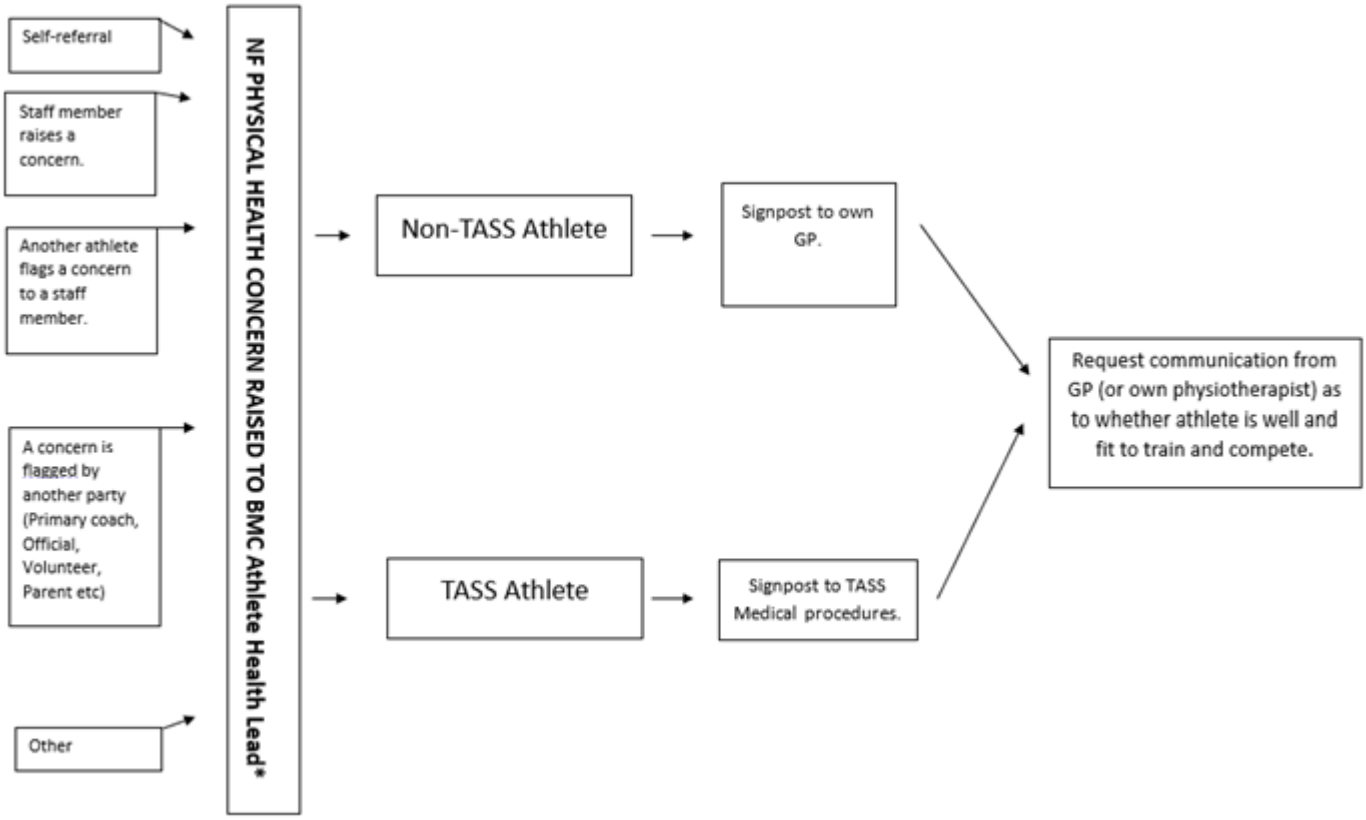
3.6. Athlete Health Referral Pathways for non-UK Sport Funded (NF) Athletes.

3.6.1. Physical Health (Injury) Concern



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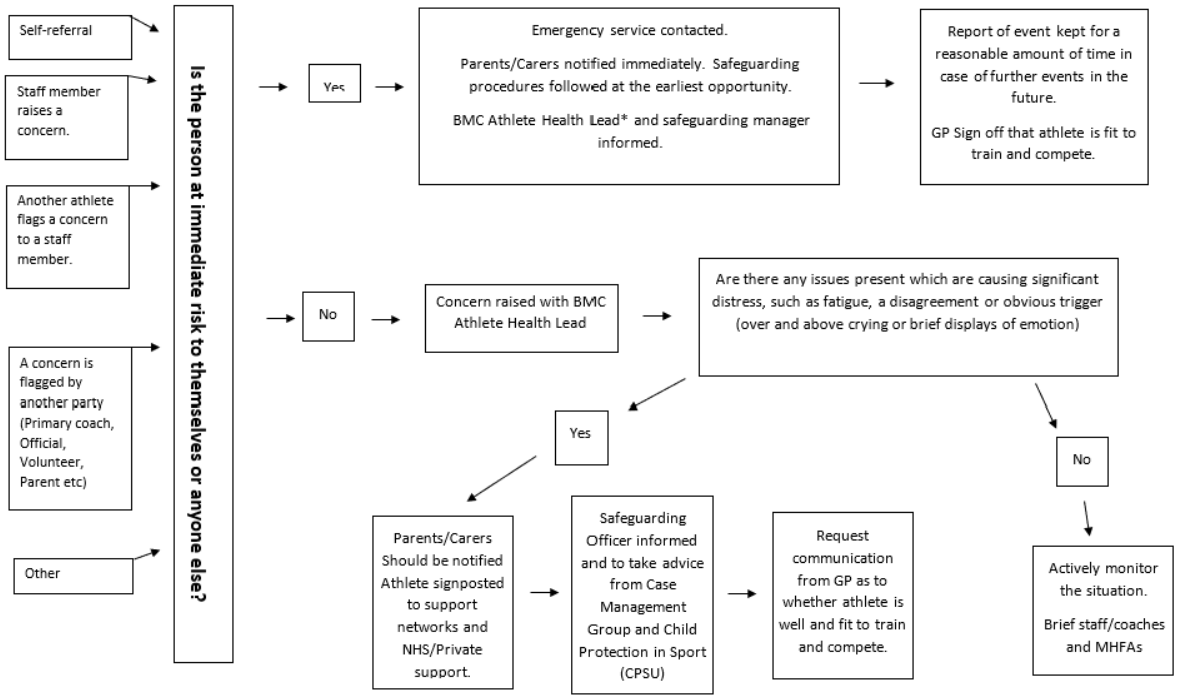
3.6.2. Mental Health Concern



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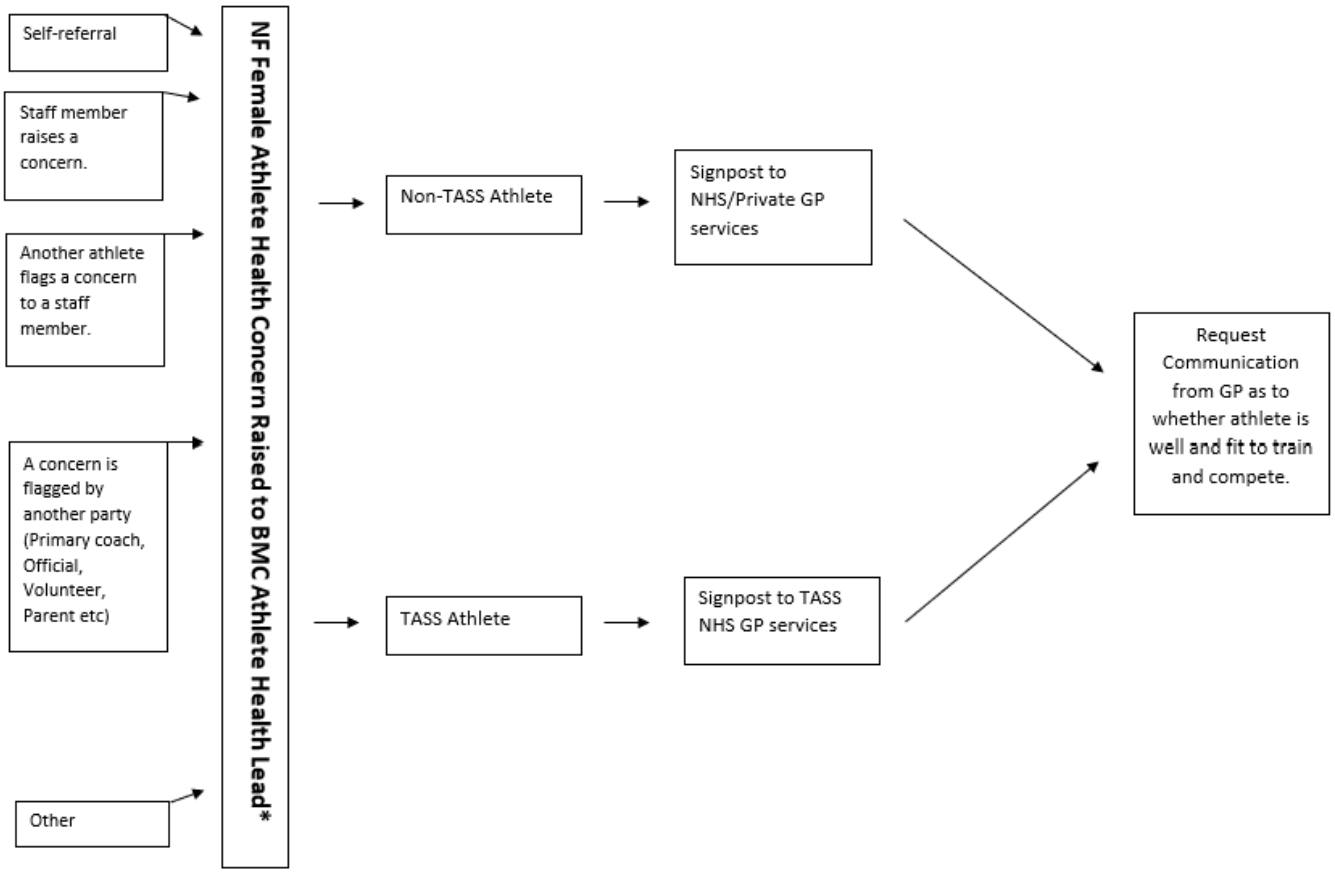
3.6.3. Female Athlete Health Concern



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4. INJURY PREVENTION & EDUCATIONAL PROGRAMS

4.1. Injury prevention and educational programs are multifaceted initiatives that aim to create safer environments, reduce injuries, and promote overall well-being through a combination of education, awareness, and strategic interventions.

4.2. Injury prevention and educational programs are designed to reduce the incidence and severity of injuries, promote safe practices, and enhance overall well-being.

4.3. Education programs are implemented across the pathway programs via a range of delivery methods.

4.3.1. The purpose of these programs is to.

4.3.1.1. Reduce likelihood of an athlete sustaining an injury.

4.3.1.2. Increase awareness about potential hazards and risky behaviours, fostering a culture of safety where individuals are more conscious of their actions.

4.3.1.3. Injury prevention is not only about avoiding immediate harm but also about promoting long-term health. By preventing injuries, individuals can maintain better overall health and well-being.

4.3.1.4. These programs aim to educate and empower individuals about the causes of injuries, risk factors, and preventive measures, empowering them to make informed decisions regarding their safety.

4.3.1.5. These programs target specific risk factors associated with climbing.

4.3.1.6. Successful injury prevention programs aim not only to provide short-term solutions but also to instil lasting behaviour change, encouraging individuals to adopt safer practices in the long run.

4.3.2. The principle of these programs is to:

4.3.2.1. Identify and assess potential risks and hazards associated with specific activities or environments to develop targeted prevention strategies.

4.3.2.2. Provide education and training to individuals involved, focusing on proper techniques, safety guidelines, and awareness of potential risks.

4.3.2.3. Foster collaboration among all stakeholders and the community to ensure a coordinated approach to injury prevention.

4.3.2.4. Tailor education programs to the specific needs and characteristics of the target population, considering factors such as age, skill level, and health status.

4.3.2.5. Emphasize the importance of physical fitness and conditioning to prevent injuries and enhance resilience.

4.3.2.6. Implement ongoing monitoring and evaluation to assess the effectiveness of prevention strategies and make necessary adjustments based on feedback and data.

4.3.2.7. Consider cultural factors and individual beliefs when designing and implementing programs to ensure relevance and effectiveness across diverse populations.

4.3.2.8. Ensure that injury prevention programs are accessible to all individuals, regardless of socioeconomic status, abilities, or other demographic factors.

4.4. Specific Injury and Education Programs (Appendix 1)
- 4.4.1. RED-S
- 4.4.2. Growth Plate Fractures
- 4.4.3. Finger Pulley Injuries
- 4.4.4. Finger Skin Management

4.5. General Programs (Appendix 2)
- 4.5.1. Concussion Guidelines
- 4.5.2. Environmental and Climate Management
- 4.5.3. Female Athlete Health and Pregnancy
- 4.5.4. Finger Taping *(In Development, due by end 2024)*
- 4.5.5. Foot Health *(In Development, due by end 2024))*
- 4.5.6. Nutrition and Hydration *(In Development, due by end 2024))*
- 4.5.7. How to use an MDT *(In Development, due by end 2024))*
- 4.5.8. Training Schedule guidance to prevent over training *(In Development, due by end 2024))*
- 4.5.9. Academic Education *(In Development, due by end 2024)*

5. MENTAL HEALTH STRATEGY, ACTION PLAN AND WORKING GROUP

5.1. The BMC, as the National Governing Body (NGB), will develop and implement a new mental health strategy, working group and action plans to prioritise the well-being of athletes.

5.2. The strategy will include.
- 5.2.1. Awareness and Education through training programs and resources.
- 5.2.2. Clarity of Support Systems available and signposting using referral pathways.
- 5.2.3. Embed and ensure inclusion in the sports culture, working to destigmatise mental health issues.
- 5.2.4. Crisis Management and Action Plans.
- 5.2.5. Emergency Protocols for handling of a crises and safe and supportive reintegration plans.

5.3. The mental health working group will develop strategy and then review the effectiveness of mental health strategies and action plans, adjusting based on feedback and evolving best practices.

6. SAFE TRAINING ENVIRONMENTS

6.1. The BMC as the NBG of the sport has a comprehensive framework of foundational elements to ensure physically and mentally safe training and competition environments comprising of
- 6.1.1. Standard Operating Procedures (SOPs)
- 6.1.2. Risk Assessments
- 6.1.3. Emergency Action Plans
- 6.1.4. The BMC holds Liability Insurance and Group Business Insurance, offering comprehensive coverage, including provisions for repatriation and medical expenses, among other aspects.

6.2. These protocols function to ensure the safety, efficiency, and adherence to regulatory compliance in all program delivery environments.

6.3. To maintain consistency and ensure alignment with our commitment to athlete health, all events undergo scrutiny via our Events Approval System. This system serves as a checkpoint to assess the viability, compliance, and risk management strategies associated with each event.

6.4. For funded athletes home training environments are also required to ensure safe physical and mental training and competition environments and adhere to section 6.1.

6.5. It is mandatory for all staff members to rigorously adhere to these systems and processes. Consistent adherence ensures a unified approach across the NGB, fostering a culture of reliability, safety, and operational excellence.

6.5.1. All coaches / personnel at training and competition venues will have an appropriate first aid qualification reflective of their role.

7. INCLUSIVITY

7.1. In our commitment to fostering a culture of holistic athlete well-being, we prioritise inclusion as a foundational principle within our athlete health policy.

7.2. This commitment to inclusion is integral to our overarching goal of supporting athletes in achieving their full potential, both on and off the field. We recognize that a truly healthy athlete is one who feels supported, valued, and included in every facet of their athletic journey.

7.3. Every athlete, irrespective of background, identity, or ability, deserves equitable access to resources, support, and opportunities for optimal health and performance.

7.4. This athlete health policy has the following foundational principles:

7.4.1. Equal Access to Health Resources: Ensuring that all athletes, regardless of their background or circumstances, have equal access to healthcare services, mental health support, and resources necessary for their well-being, recognising that the processes are different for funded and non-funded athletes.

7.4.2. Diversity and Representation: Celebrating and respecting the diverse identities, backgrounds, and perspectives within our athlete community. We strive to create an environment that is inclusive and welcoming to all.

7.4.3. Accessibility and Accommodation: Proactively identifying and addressing barriers that may hinder athletes' access to health services or participation. This includes providing reasonable accommodations for athletes with disabilities or specific needs.

7.4.4. Education and Awareness: Promoting awareness and understanding of diverse health needs among athletes, coaches, and staff. This includes education on cultural competency, sensitivity, and inclusivity in health-related matters.

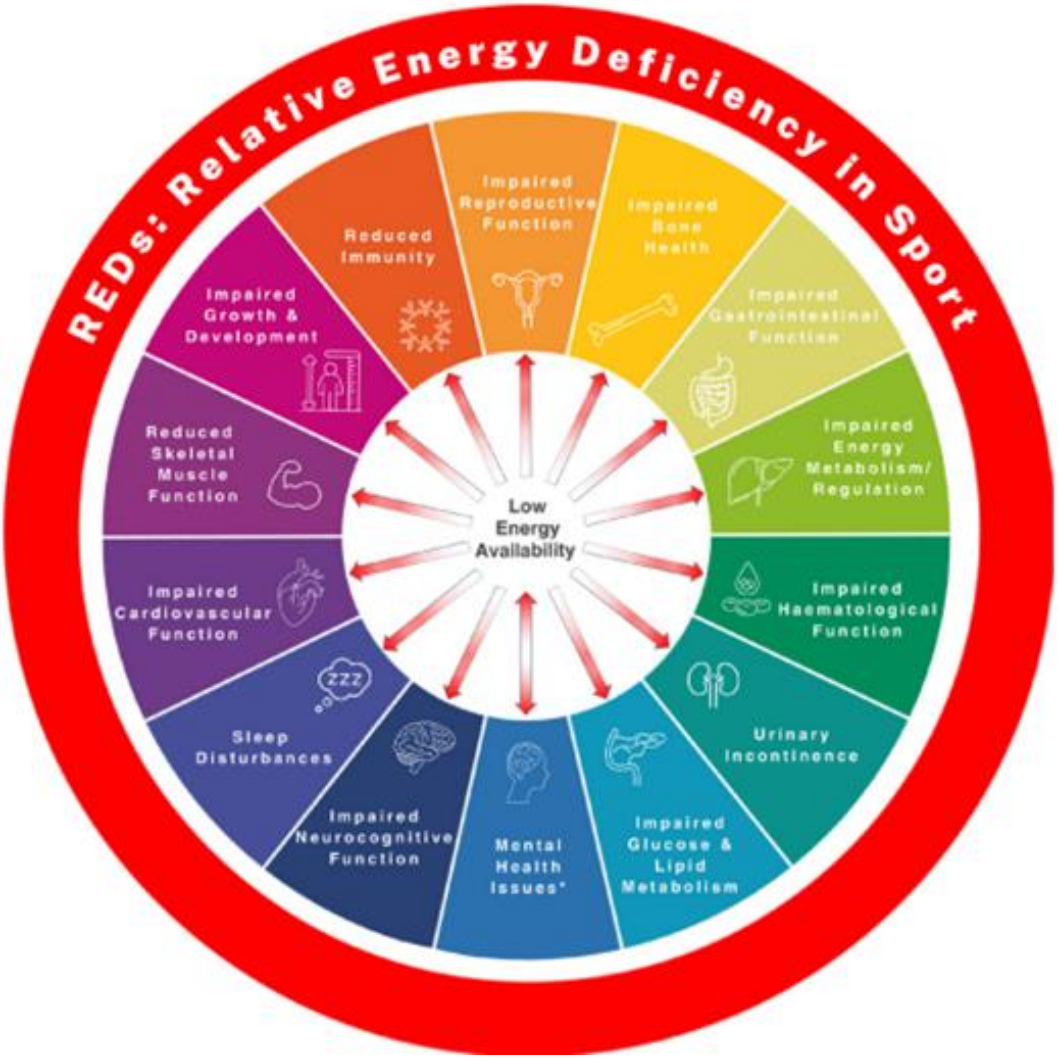
7.4.5. Non-discrimination: Prohibiting discrimination based on race, ethnicity, gender, sexual orientation, religion, disability, or any other characteristic. All athletes are entitled to fair and equitable treatment in all health-related aspects.

APPENDICES

APPENDIX 1

A. RED-S

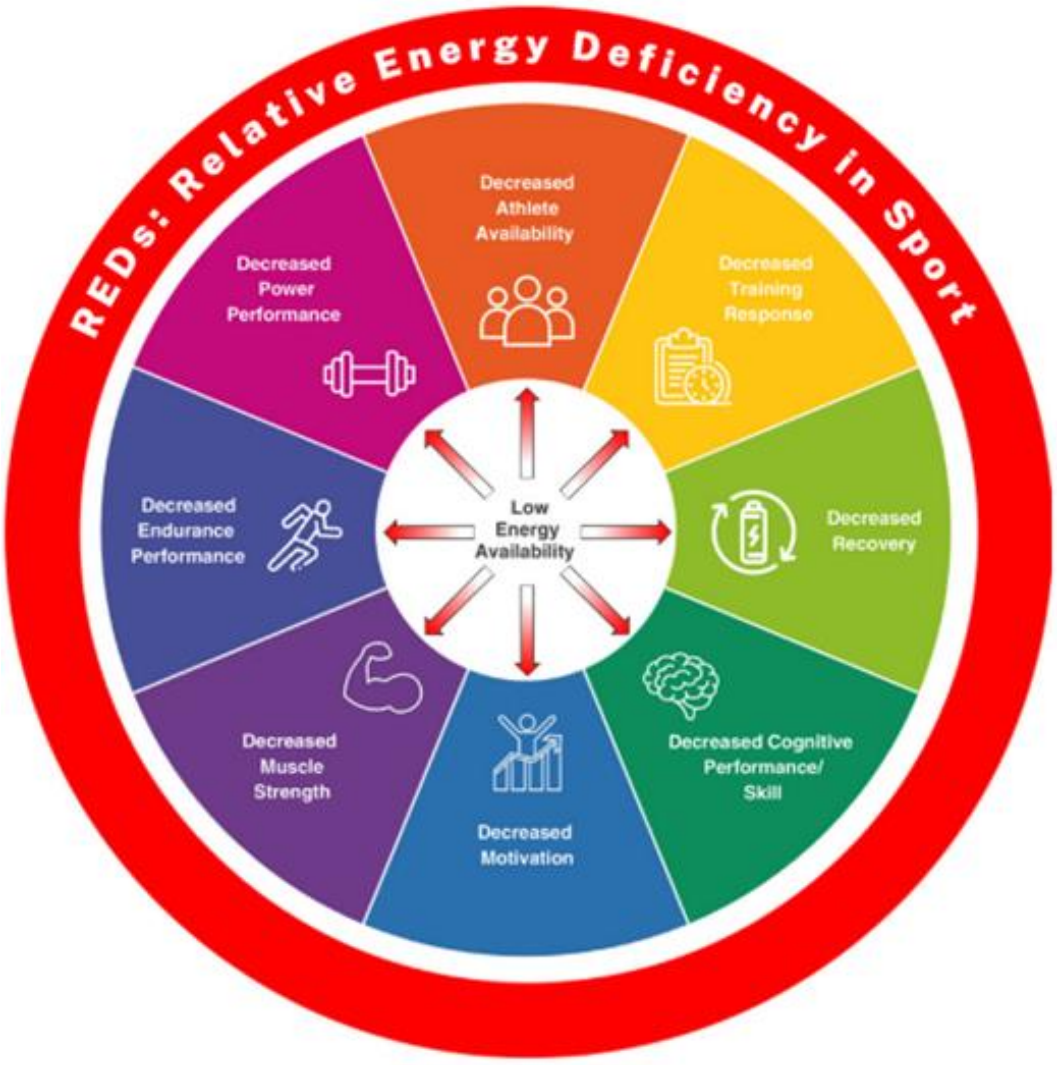
Relative Energy Deficiency in Sport (RED-S) is a syndrome that occurs when there is an imbalance between energy intake and energy expenditure in athletes, leading to various physiological and psychological consequences. It can affect both male and female athletes and involves a spectrum of issues, including disordered eating, menstrual dysfunction, and bone health problems. It can affect athletes either intentionally or unintentionally.



[1]

[1] Figure 1; Mountjoy M, Sundgot-Borgen JK, Burke LM, *et al*
IOC consensus statement on relative energy deficiency in sport (RED-S): 2018 update
British Journal of Sports Medicine 2018;52:687-697.

APPENDICES



[2]

[2] Figure 2; Mountjoy M, Sundgot-Borgen JK, Burke LM, *et al*
IOC consensus statement on relative energy deficiency in sport (RED-S): 2018 update
British Journal of Sports Medicine 2018;52:687-697.

- Effects of RED-S
  - Impaired Growth and development
  - Impact on health and well-being
  - Adverse effects on performance

- Signs and Symptoms of RED-S
  - Perfectionist tendencies
  - Disordered/restricted eating.
  - Frequent Injuries/niggles
  - Stress responses/fractures
  - Illness
  - Menstrual dysfunction in female athletes
  - Overtraining and not fuelling adequately
  - Not taking regular rest days.
  - For Female athletes.
    - Menstrual Dysfunction in female athletes.
    - Regular menstruation is a barometer of hormone health.
    - Not starting period by age of 16 or not having a period for more than 6 months

Educational programs will be developed and implemented to raise awareness about RED-S among athletes, coaches, medical professionals, and support staff. Ensure that all stakeholders understand the importance of proper nutrition for optimal athletic performance.

Procedure for providing support to athletes identified with RED-S is via the referral pathways. This may involve collaboration between sports medicine professionals, dietitians, and mental health experts.

Useful links:

- IFSC BMI Screening procedures and rules
- IOC RED-S Consensus Statement

B. GROWTH PLATE FRACTURES

A policy for managing finger growth plate fractures is important in sports, particularly those that involve hand-intensive activities such as gymnastics, basketball, or rock climbing. Teenage children who climb and train intensively are more at risk of epiphyseal (growth plate) stress fractures of the finger.
Growth plate fractures in the fingers can occur in young athletes whose bones are still growing.

- Anatomy

Growth plate stress fractures most commonly occur in teenage climbers at the time of the pubertal growth spurt, often around the timing of breast growth for girls and pubic hair in boys. The fingers don't finish growing until around age 17.
The bone grows from the growth plate and is weakest at this point. Growth plates are significantly weaker than the surrounding tendons and ligaments and so are at increased risk of injury from any activity which loads the finger.

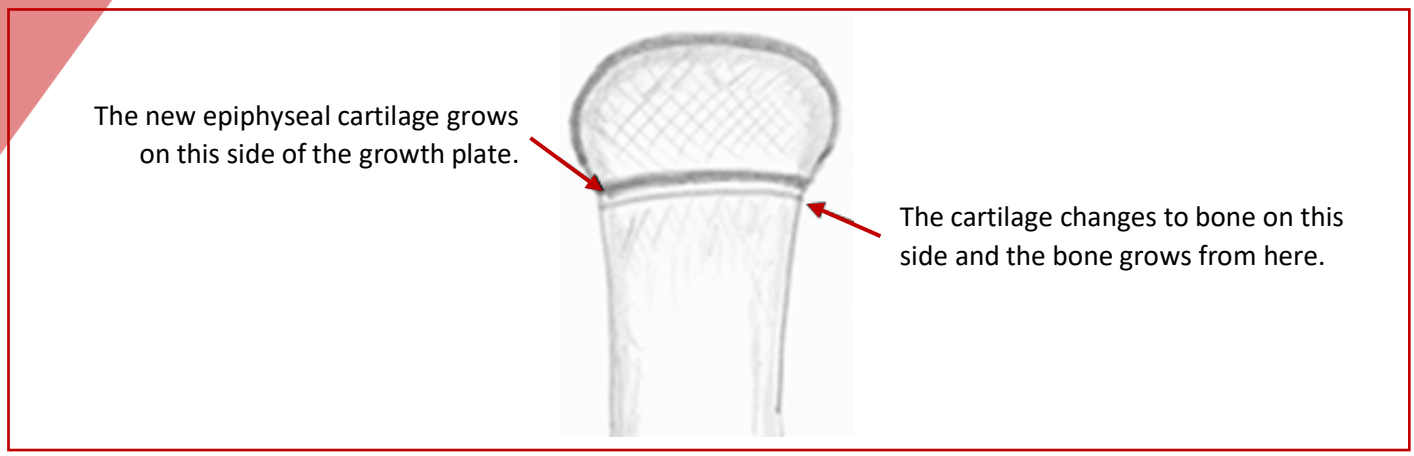


Figure 1: A growth plate and how bone grows.

- Causes

A stress fracture occurs over time rather than from one specific injury. The forces involved in climbing produce repetitive trauma to the fingers. This may decrease blood flow to the growth plate, decreasing mineralisation, which in turn weakens the growth plate junction. The forces generated on the growth plate especially from the crimping action used in climbing may pull it apart over time.

Growth plate stress fractures are not unique to the fingers of climbers and may be seen in other sports such as the forearm of young gymnasts and the shoulders of "little league" baseball players.

- Signs and Symptoms

Pain = STOP!

If a young climber has persistent pain or pain that is stopping them moving, putting pressure through a limb or a finger etc or affecting how they are performing as an athlete they **SHOULD NEVER BE ALLOWED TO "work through the pain"**. They should be assessed by a doctor to ascertain whether they have an acute injury (one that has just happened) or pain due to overuse. If finger epiphyseal injuries are left untreated, they can lead to disruption of bone growth, which may lead to permanent damage.

Epiphyseal injuries of the finger are most commonly reported in the middle and ring fingers. They tend to affect the finger joint nearest the hand, the proximal interphalangeal joint or PIP joint.

A stress fracture of the epiphysis of the PIP joint can be difficult to diagnose. Patients often complain of a slow onset of pain in the joint and sometimes notice a reduced range of movement. They may have some swelling and tenderness on the back of the PIP joint.

If young climbers experience these symptoms following training, they are likely to have an epiphyseal stress fracture and they MUST see their GP and insist on being referred to a hand surgeon urgently for experienced clinical review and further imaging. Even if nothing is seen on x-rays a focused MRI scan may confirm a stress fracture.

- Diagnosis

Athletes will often not have had a single episode of trauma but will have applied high loads through their PIP joints while climbing. The literature reports that the middle and ring fingers are most affected since these take the most strain during the crimping grip when climbing (Crimping is method of gripping a hold in rock climbing and bouldering that relies only on the fingertips for support. It's characterized by the hyperextension of the first joint in the fingers and a contraction of the second joint.)

With a stress fracture of the epiphysis of the PIP joint climbers normally complain of a gradual onset of pain in the joint and sometimes a reduced range of movement. They will often have PIP joint swelling and dorsal tenderness. The fracture is normally on the dorsal aspect as the dorsal part of the epiphysis fuses last.

The young climber will normally be in their pubertal growth spurt (peak age range 12-13 for girls and 13-15 for boys for fractures, but they can occur earlier or later depending on growth spurt and fusion of epiphysis).

They need urgent referral to a hand surgeon for examination, imaging, treatment, and advice regarding activity modification. There are several reports in the literature of growth arrest leading to angulation of the finger and long-term joint damage in teenagers who continue to climb with undiagnosed epiphyseal stress fractures.

The finding of dorsal swelling and pain in the middle or ring PIPJ. should raise a strong suspicion of a stress fracture in a young climber. The literature reports that imaging epiphyseal stress fractures is often difficult and may require multiple x-ray views of the joint, dynamic fluoroscopy or MRI to confirm the clinical diagnosis.

Figure 2

Figure 3

APPENDICES

Figure 2:
Middle Finger Proximal Interphalangeal Joint with epiphyseal stress fracture that was not seen on this x-ray that would have shown on MRI.

Figure 3:
Same young climber's middle Proximal Interphalangeal Joint now showing the stress fracture having been re x-rayed a few weeks down the line. (both x-rays used with the permission of the patient and parent)

- Types of Stress Fracture

The most common fractures are Salter-Harris III.

1. Un-dislocated fracture - the joint is allowed free movement.
    a. No stress sports (climbing etc and no volleyball etc) for 8 weeks – then control MRI.
2. Minor displacement splint – or else as above
3. Major surgery

- Treatment

Good results can be achieved if these are treated early, and rest adhered to. If treated late and the climber continues to train despite the stress fracture, rotational mal-alignment and partial necrosis of the epiphysis can result.

- Prevention

Consider the biological age of the growth plates of the athlete and whether growth plates have closed (scanning can indicate whether closed)
Epiphyseal (growth plate) fractures tend to happen around the age of 15, just before they close.
During puberty encourage use of open hand crimping to reduces the risk of stress on the growth plates.
Proper Warm-up: Adequate warm-up before climbing to prepare the fingers for stress.

- Return to Climbing

Gradual return to climbing after the acute phase, starting with easy routes and avoiding strenuous moves.
Consultation with a healthcare professional or physical therapist for guidance on the appropriate timeline for returning to full climbing activities.

Climbers should be proactive in managing finger health, addressing any signs of discomfort promptly, and seeking professional medical advice when needed. Early intervention and a comprehensive rehabilitation approach are essential for optimal recovery from growth plate fractures.

Further reading

1. Morrison AB, Schöffl VR (2007). Physiological responses to rock climbing in young climbers. Br J Sports Med, 41(12), 852-861.
2. Hochholzer T, Schöffl V (2003). One Move too many… how to understand the injuries and overuse syndromes of rock climbing. Lochner-Verlag, Germany.
3. Hochholzer T, Schöffl VR (2005). Epiphyseal fractures of the finger middle joints in young sport climbers. Wilderness and Environmental Medicine. 16:139-42.
4. Schöffl VR, Schöffl I (2007). Finger pain in rock climbers: reaching the right differential diagnosis and therapy. J Sports Med Phys Fitness, 47:70-80.
5. BMC website: Should U18s use campus boards?

APPENDICES

Acknowledgements

- Dr Katharine Rivett, MB ChB, MRCGP
- Mr Tim Halsey MB ChB, FRCS (Tr&Orth), Dip Hand Surg
- Dr Isabelle Schöffl
- Prof Dr Volker R. Schöffl, MD, PhD, MHB

C. FINGER PULLEY INJURIES

Finger pulley injuries are common among climbers, particularly those who engage in activities like rock climbing and bouldering. The finger pulleys are essential structures that help maintain the balance between the tendons and bones, providing stability during gripping activities. Climbers are prone to overuse injuries and acute trauma to these pulleys due to the repetitive and strenuous nature of their sport.

Here are key aspects related to finger pulley injuries in climbers:

- Anatomy of Finger Pulleys:

The finger pulleys are thickened bands of connective tissue (annular ligaments) that encircle the tendons, keeping them close to the bone during flexion. The A2 and A4 pulleys, located in the middle and at the base of the fingers, respectively, are the most commonly injured in climbers.

- Causes of Finger Pulley Injuries:

Climbers often engage in repetitive gripping and crimping motions, leading to overuse of the finger pulleys and high-stress dynamic moves, especially when combined with poor technique, can result in sudden overloading of the pulleys. Climbing without proper warm-up increases the risk of pulley injuries and insufficient rest and an imbalance in training between strength and flexibility can contribute to injuries.

- Signs and Symptoms:

Pain: Tenderness and pain along the affected finger, particularly during gripping activities.
Swelling: Swelling around the injured area may occur.
Weakness: Reduced strength and difficulty gripping objects.
Popping or Snapping Sensation: Some climbers report a popping or snapping sensation at the time of injury.

- Grades of Finger Pulley Injuries:

Grade I: Mild strain with minimal damage.
Grade II: Partial tear of the pulley.
Grade III: Complete tear or rupture of the pulley.

- Diagnosis:

Diagnosis is often clinical, with a physical examination by a healthcare professional.
Imaging studies such as ultrasound or MRI may be used to assess the severity of the injury.

- Prevention:

Adequate warm-up before climbing to prepare the fingers for stress. Balanced Training: Incorporate strength and flexibility exercises in training routines. Gradually increase the intensity and difficulty of climbing sessions.

- Return to Climbing:

Gradual return to climbing after the acute phase, starting with easy routes and avoiding strenuous moves.
Consultation with a healthcare professional or physical therapist for guidance on the appropriate timeline for returning to full climbing activities.

Climbers should be proactive in managing finger health, addressing any signs of discomfort promptly, and seeking professional medical advice when needed. Early intervention and a comprehensive rehabilitation approach are essential for optimal recovery from finger pulley injuries.

D. FINGER SKIN MANAGEMENT

Finger skin management is crucial for climbing athletes, as their hands are subjected to significant stress and friction during climbing. Maintaining healthy skin is essential for optimal performance and injury prevention. Here are some tips for finger skin management in competition climbers:

- Regular Moisturizing:

Keep the skin on fingers well-moisturized to prevent dryness and cracking. Use a quality hand cream or moisturizer regularly, especially after climbing sessions.

- Callus Management:

While calluses can provide some protection, they can also become too thick and prone to tearing. Use a pumice stone or callus file to manage the thickness of calluses, preventing them from becoming overly rigid and prone to cracking.

- Taping Techniques:

Learn proper taping techniques to provide additional support to your finger joints and protect against skin injuries. Taping can be particularly helpful for maintaining skin health.

- Appropriate Hand Care Products:

Use climbing-specific hand care products, such as climbing balms or salves, designed to nourish and protect the skin. Some products contain ingredients like beeswax, shea butter, and essential oils to promote skin health.

- Use of Chalk when climbing

Climbing chalk is an essential accessory for climbers, helping to improve grip by absorbing sweat and moisture from the hands. There are different types of climbing chalk, each with its specific characteristics, and climbers may choose the type that best suits their preferences and needs.

Here are some common types of climbing chalk and their uses:

- **Loose Chalk:** Fine powder chalk packaged in a loose form. Use: Ideal for refilling chalk balls or chalk socks. Provides a quick and even application on hands. Suitable for bouldering and route climbing.
- **Chalk Balls:** Chalk enclosed in a permeable fabric ball or sock. Use: Provides controlled and mess-free chalk distribution. Suitable for indoor and outdoor climbing. Preferred by some climbers for gym use.
- **Block Chalk:** Chalk compressed into solid blocks or bricks. Use: Easy to break into smaller pieces for personal use. Popular for bouldering and weightlifting. Less messy than loose chalk.
- **Liquid Chalk:** Chalk suspended in a liquid or gel base. Use: Applies as a liquid and dries quickly to leave a chalk layer. Provides longer-lasting grip compared to loose chalk. Ideal for humid conditions or long climbing sessions.
- **Hybrid Chalk:** A combination of magnesium carbonate (traditional chalk) and other drying agents. Use: Designed to provide enhanced moisture absorption. Suitable for climbers with sweaty hands or climbing in humid conditions.

- **Specialised Chalk Blends:** Chalk blends with added ingredients for specific purposes. Some blends include drying agents or essential oils. Use: Marketed for unique preferences or skin conditions. Examples may include antibacterial chalk or skin-friendly blends.

- Climbers may experiment with different types of chalk to find the one that works best for their preferences, skin type, and climbing conditions. It's common for climbers to carry a combination of chalk types to adapt to varying situations and preferences.

- Consider using chalk on your hands to reduce excessive sweating, which can contribute to skin softening. Be mindful of potential skin irritation and test any new products before competition.

- Clean your hands gently after climbing to remove chalk, dirt, and sweat. Harsh soaps can strip the skin of natural oils, so choose mild cleansers to avoid excessive drying.

- By incorporating these practices into their routine, competition climbers can promote the health and resilience of their finger skin, contributing to better performance and reducing the risk of injuries during competitions.

APPENDICES

APPENDIX 2

A. CONCUSSION GUIDANCE

- At all levels in all sports, if an individual is suspected of having a concussion, they must be immediately removed from play.
- A concussion is a brain injury. Concussion is a traumatic brain injury resulting in a disturbance of brain function. It affects the way a person thinks, feels and remembers things.
- 'If in doubt sit them out'. An athlete should not return to competition or training or within 24 hours of a suspected concussion.
- Anyone with a suspected concussion should NOT drive a motor vehicle (e.g. car or motorcycle), ride a bicycle, operate machinery, or drink alcohol within 24 hours of a suspected concussion and should seek review by an appropriate Healthcare Professional before driving.
- All those suspected of sustaining a concussion should be assessed by an appropriate onsite Healthcare Professional or by accessing the NHS by calling 111 within 24 hours of the injury.
- If there are concerns about other significant injury or the presence of 'red flags' then the player should receive urgent medical assessment onsite or in a hospital Accident and Emergency (A&E) Department using ambulance transfer by calling 999 if necessary.
- Anyone with concussion should generally rest for 24-48 hours but can undertake easy activities of daily living and walking, but must avoid intense exercise, challenging work, or sport. They can then progress through the graduated return to activity (education/work) and sport programme.
- Anyone with symptoms that last longer than 28 days should be assessed and managed by an appropriate Healthcare Professional (e.g. their General Practitioner [GP])
- The on-field signs and criteria for immediate removal from sport include:
  - Confirmed loss of consciousness
  - Tonic posturing
  - Convulsions
  - Balance disturbances/Ataxia
  - Definite confusion
  - Not orientated to time and place
  - Clearly dazed
  - Definite behavioural changes
  - Oculomotor abnormalities
- Athletes suspected of having a concussion should be immediately removed from the training or competitive environment and monitored for progression of neurological deficit. The time frame of observation should last for 48 hours.

- Graduated Return-to-Sport (GRTS) Once symptom and sign free, returning an adult athlete to their chosen sport should be conducted in a step-wise fashion using the GRTS protocol. Within an enhanced care setting the GRTS process is as follows:
  - Stage 1. No activity
  - Stage 2. Light aerobic activity
  - Stage 3. Sport-specific exercise
  - Stage 4. Non-contact training drills
  - Stage 5. Full training
  - Stage 6. Return to competition.

- There should be at least 24 hours between each step of the progression. If any symptoms or signs arise during exercise, the athlete should go back to the previous step, recommencing it once symptom and sign free.

- As concussion presentation can be delayed, it is important that an athlete suspected of having concussion, either through mechanism of injury or presenting signs and symptoms, is immediately removed from the training or competitive environment, and monitored for progression of neurological deficit.

- Playing on with symptoms of concussion can make them worse, significantly delay recovery, and, should another head injury occur, result in more severe injury and in rare cases, death (known as second impact syndrome). This is why it is so important to remove anyone with suspected concussion from the at-risk activity immediately.

- Red Flags – requiring – requiring urgent medical assessment.
  If any of the following 'red flags' are reported or observed, then the athlete should receive urgent medical assessment from an appropriate Healthcare Professional onsite or in a hospital Accident and Emergency (A&E) Department using emergency ambulance transfer if necessary:
  - Any loss of consciousness because of the injury
  - Deteriorating consciousness (more drowsy)
  - Amnesia (no memory) for events before or after the injury
  - Increasing confusion or irritability
  - Unusual behaviour change
  - Any new neurological deficit e.g. —Difficulties with understanding, speaking, reading or writing —Decreased sensation —Loss of balance —Weakness —Double vision
  - Seizure/convulsion or limb twitching or lying rigid/ motionless due to muscle spasm
  - Severe or increasing headache
  - Repeated vomiting
  - Severe neck pain
  - Any suspicion of a skull fracture (e.g. cut, bruise, swelling, severe pain at site of injury)
  - Previous history of brain surgery or bleeding disorder
  - Current 'blood-thinning' therapy
  - Current drug or alcohol Intoxication

- Onset of Symptoms
  If any of the following visible clues or symptoms are present following a head injury, the player should be suspected of having a concussion and immediately removed from competition or training and evaluated by an appropriate Healthcare Professional.

APPENDICES

Please see

- UK Concussion Guidelines for Non-Elite (Grassroots) Sport
- UKSI Concussion Management Guidelines for UK High Performance Sport (awaiting publication)

B. ENVIRONMENTAL AND CLIMATE MANAGEMENT

A guide will be provided for athletes and include the following:

- Medical: Upper Respiratory Tract Infections, Traveller's Diarrhoea, Medications
- Jet Lag: Questionnaire, Strategies, Symptoms Questionnaire
- Nutrition: Pre-Travel and during travel guidance, Local guidance, Hydration Monitoring, nutrition principles.
- Cooling: Kit guidance, Cooling Strategies, Finger Skin Management.

C. FEMALE ATHLETE HEALTH AND PREGNANCY

A guide will be provided for athletes and include the following:

- Menstrual Health
- Pelvic Health
- RED-S
- Pregnancy