# Focus Question 2 - How does sports medicine address the demands of specific athletes?

## Children and Young Athletes

**Medical Conditions – Asthma**

1. Clare has asthma which of the following ways would you recommend he warms up before a game to prevent exercise induced asthma?
2. Limit use of preventative medication, gradual warm up, adequate water intake
3. Use of preventative medication, limit jogging prior to the game, decrease water intake
4. Limit use of preventative medication, fast paced warm up, adequate water intake
5. **Use of preventative medication, gradual warm up, adequate water intake**

**Medical Conditions – Diabetes**

1. Type 1 Diabetes is defined as;
2. **The body’s inability to produce insulin**
3. The body’s ability to over produce insulin
4. The body’s inability to produce insulin or use it efficiently
5. The body’s ability to manage insulin production efficiently
6. Strenuous exercise can cause the following to occur which would require the athlete to be provided with a glucose substance
7. Hyperglycemia
8. Asthma
9. Epileptic Fit
10. **Hypoglycemia**

**Medical Conditions – Epilepsy – True of False Statements**

|  |  |
| --- | --- |
| **Statement** | **True/False** |
| People with epilepsy should not participate in contact sports where they could sustain a blow to the head | **T** |
| People with epilepsy can participate freely in swimming/rock climbing/scuba diving | **F** |
| When a person is having an epileptic seizure they should be restrained | **F** |
| Medication can reduce the number of seizures | **T** |
| Extremes of fatigue and/or temperatures can cause an epileptic seizure | **T** |

**Overuse Injuries that can occur in children who over use certain areas of their body – Mix and Match**

|  |  |
| --- | --- |
| **Sport** | **Overuse Injury** |
| **Running** | ***Swimmer’s Shoulder*** |
| **Bowling in Cricket** | **Shin Splints** |
| **Running** | **Stress Fractures in the lower back** |
| ***Swimming*** | **Tendonitis in the shoulder** |
| **Gymnastics** | Tennis Elbow |
| Tennis | **Patella Tendonitis** |

**Thermoregulation - True or False**

|  |  |
| --- | --- |
| **Statement** | **True/False** |
| Adults rely more on radiation and convection to lose heat than children | **F** |
| Children cannot lose heat as effectively as adults through evaporation | **T** |
| Children are better at acclimitising to heat than adults | **F** |
| Children’s sweat glands release fluid slower than adults | **T** |
| Children can tolerate heat for longer periods of times than adults and therefore have a reduce risk of dehydration | **F** |
| Children are more likely to develop hypothermia in cold conditions than adults | **T** |

**Resistance Training – Mix and Match**

Unscramble the following considerations in relation to Appropriateness of Resistance Training for Children and Young Athletes.

|  |  |
| --- | --- |
| **Age** | **Considerations** |
| 7 or younger | **Progress to more advanced youth programs in resistance exercise; add sport-specific components; emphasise exercise techniques; increase volume** |
| ***8 – 10*** | **Move child to entry-level adult programs after all background knowledge has been mastered and a basic level of training experience has been gained** |
| **11 – 13** | *Gradually increase the number of exercises; practise exercise technique in all lifts; start gradual progressive loading of exercises; keep exercises simple; gradually increase training volume; carefully monitor toleration to the exercise stress* |
| **14- 15** | Introduce child to basic exercises with little or no weight; develop the concept of a training session; teach exercise techniques; progress from body weight calisthenics, partner exercises, and lightly resisted exercises; keep volume low |
| **16 or older** | **Teach all basic exercise techniques; continue progressive loading of each exercise; emphasise exercise techniques; introduce more advanced exercises with little or no resistance** |

Source – Outcomes 2

## Female Athletes

1. Which of the following need to be considered in relation to sports medicine and female athletes?
2. Eating disorders, heart conditions, iron deficiency, pregnancy
3. Thermoregulation, eating disorders, iron deficiency, bone density
4. **Eating disorders, iron deficiency, bone density, pregnancy**
5. Eating disorders, overuse injuries, bone density, pregnancy
6. What is the correct term use to describe iron deficiency?
7. Osteoporosis
8. **Anemia**
9. Bulimia
10. Arthritis
11. What condition contributes to medical issues with bone density?
12. Osteoporosis
13. Anemia
14. Bulimia
15. **Amenorrhoea**
16. If it is an uncomplicated pregnancy provide three reasons why it is beneficial to continue to exercise

|  |
| --- |
| 1. **Maintain** fitness and general wellbeing |
| 1. **Weight** **Control** in the later stages of pregnancy |
| 1. **Improved** muscle tone |

1. What does the female triad cover?

**Eating** **Disorders**

**Menstruation**

**Bone Density**

1. **Complete the sentence**

Sports induced anemia can lead to **reduce** **energy levels** and **reduced performance**

Osteoporosis increases the risk of **injury**

Eating disorders lead to **starvation** and **dehydration** which negatively affects sports performance.

## Adult and Aged Athletes

1. List three sports which would be appropriate for someone with a heart condition
2. **Aqua Aerobics**
3. **Walking**
4. **Swimming**
5. List three sports which would be appropriate for someone with a concerns around Fractures and Bone Density
6. **Aqua Aerobics**
7. **Cycling**
8. **Pilates**
9. List three sports which would be appropriate for someone with a concerns around Flexibility and Joint Mobility
10. **Tai Chi**
11. **Yoga**
12. **Pilates**
13. Fill in the blanks

* **Aerobic** exercise is important for adult and aged athletes to help maintain the **strength** of the heart muscle
* **Flexibility** is important for adult and aged athletes to maintain **mobility**  in their **joints**
* Non- **Weight** **Bearing** activities should be considered for adult and aged athletes as they reduce the risk of **injury**