

General Knowledge

Notes

1. Olympic Games

1.1 Origin and History

- The Olympic Games first started in ancient Greece. It is named after its hosting place, Olympia, the origin of the Olympic Games.
- Many temples were built there by the ancient Greeks, including the famous Temple of Zeus. It was a religiously sacred place and a famous sports city. It was also a symbol of peace and friendship at that time.
- The first Ancient Olympic Games held in 776 B.C. In A.D. 394, the Emperor Theodosius ended the games.
- Nowadays, Olympia is a place located in Athens, Greece. The first modern Olympic Games were held there. It is also where the Olympic Torch is ignited.
- The Modern Olympic Games were started by a Frenchman, Baron Pierre de Coubertin. In 1894, he arranged a meeting in Paris to discuss holding a sports competition for athletes from all over the world to participate.
- The first Modern Olympic Games held in Athens in 1896, with 311 male athletes.
- In the second Olympic Games held in 1900, besides male athletes, 19 female athletes joined the Games.
- From the first Modern Olympic Games till now, the Olympic Games were held in many countries in every 4 years. However, the Olympic Games originally held in 1916(6th), 1940(12th) and 1944(13th) were cancelled due to World War I, World War II and Japan tried to attack various Asian countries.
- The first Modern Olympic Games only lasted for 1 day. In 1930, the International Olympic Committee decided to restrict its hosting duration to 16 days.
- The 1924 Winter Olympics, officially known as the first Olympic Winter Games, which was held in Chamonix, France.

1.2 Symbols and Spirits

- The Olympic motto is "Faster, Higher, Stronger" (Latin is Citius, Altius, Fortius). It represents not to be fear, overcome all challenges and strive for excellence. It describes the goals of great athletes all over the World.
- The principles of Olympism included participation, competition, fair-play, friendship and striving.
- Meaning of the five Olympic Rings: The image of five interlocking rings (blue, yellow, black, green and red respectively) is the most remarkable emblem of the modern Olympic Games. It symbolizes the union of the five continents and the meeting of athletes from all over the world at the Olympic Games through fair and just competitions and a spirit of friendship.
- The Olympic Torch is the symbol of the Olympic Games. It was ignited in the Ancient Olympic Games, commemorating the theft of fire from the Greek god Zeus by Prometheus.
- There is no Torch Relay at the first Modern Olympic Games. The fire was reintroduced at the Olympics in 1928. The Torch Relay began at the Olympic Games in 1936.
- The Olympic Torch is lit on the day of the opening ceremony and is extinguished at end of the Games.
- Mascots in the Olympic Games have become a unique feature of the Games. They usually appear as interesting souvenirs and represent the cultural heritage. The first mascot in the Summer Olympics was created in the 1972 Munich Games.

1.3 Olympic and Society

- The Paralympic Games were founded in 1960, jointly organized by the International Olympic Committee

and the International Paralympic Committee. They are elite sport events for athletes from different disability groups. The first Winter Games in Paralympics history were held in Sweden in 1976, and as with the Summer Games, have taken place every four years.

- Since the Summer Games of Seoul, Korea in 1988 and the Winter Games in Albertville, France in 1992 the Games have also taken part in the same cities and venues as the Olympics due to an agreement between the IPC and IOC.
- The first Special Olympic Games were held in 1968, a game for people with intellectual disabilities, which held every 2 years between summer and winter games alternatively
- The First Refugee Olympic Team participated in the Rio, Brazil in 2016, 10 refugee athletes raised global attention to the refugee crisis.
- International University Sports Federation (French: Fédération Internationale du Sport Universitaire, FISU) was founded in 1949. FISU's main responsibility is to supervise both the Summer and Winter Universiades, as well as the World University Championships. As the world governing body of national university sports organizations, it currently has 176 member associations, which organizes Summer and Winter Universiades at every odd-numbered years, and World University Championships at every even-numbered years.

1.4 Olympic Games and China

1.4.1 Beijing Olympic Games

- Beijing was the hosted city of the 29th Olympics and the 13th Paralympics in August and September 2008 respectively.
- The official Mascots of Beijing 2008 Olympic Games are Fuwas, which named Beibei, Jingjing, Huanhuan, Yingying and Nini. When reading their names together, 'Bei Jing Huan Ying Ni', it stands for "Welcome to Beijing," offering a warm invitation from Beijing to the world.
- Their colors and inspiration are drawn from the Five Olympic Rings, the vast natural landscape of China and the images of the beloved animals.
- Fuwas carry a message of friendship, peace, a striving spirit and harmony between men and nature, to children all over the world.

1.4.2 Olympic Equestrian in Hong Kong

- In view of the enthusiasm and aspiration of various sectors in Hong Kong to be an active participant in the Olympics and Paralympics, Hong Kong SAR Government has been entrusted by the Beijing Organizing Committee for the Games of the 29th Olympiad to hold the Equestrian Events of the Olympic and Paralympic Games.
- The Equestrian Committee (Hong Kong) of Beijing Organizing Committee for the Games of the 29th Olympiad (the Equestrian Committee) is formed in 2005 to plan and host the Equestrian Events of the 2008 Olympic Games and Paralympics. Meanwhile, Hong Kong Jockey Club is responsible for designing and constructing the competition venues.
- Equestrian is a competition connected with riding horses, the current Olympic equestrian disciplines are Dressage, Jumping, and Eventing.
- In each discipline, both individual and team medals are awarded. The special feature of this sport is during the competition, both male and female athletes will compete together in the same category.

1.4.3 Olympic Games and Hong Kong Athletes

- In 1996 Atlanta Olympics, Lee Laishan, the windsurfer became the first Olympic Gold Medalist in Hong Kong.
- Ko Laichak and Li Ching have obtained the silver medal in Table Tennis Men's Doubles of 2004 Athens Olympics.

- Cyclist Lee Waisze won the bronze medal in the Olympic Women's Keirin of 2012 London Olympic

2. Exercise and Health

2.1 Exercise, Health and Physical Fitness

- 2.1.1 Definition of 'Health' : According to World Health Organization, health is not merely the absence of disease but a state of complete well-being in physiology, mentality, emotion, sociability, work, faith and religion.
- 2.1.2 Definition of 'Physical Fitness' : an integrated ability of body to adapt day-to-day life, exercise and environment (i.e. factors such as temperature 、 climate change) . A person with good physical fitness is able to manage everyday routine, enjoy and relax in leisure time and have the physical ability to deal with emergent situation.
- 2.1.3 Physical fitness is often divided into two types, Health-related Fitness and Performance-related Fitness. Health-related Fitness contains five elements:
- Cardio-respiratory Endurance
 - Cardio-respiratory endurance refers to the ability of the circulatory and respiratory systems to transport oxygen and nutrients to working muscles efficiently. It also refers to the ability to do prolong exercise by the whole body.
 - Muscular Strength and Muscular Endurance
 - Muscular strength refers to the maximum force exerted by a muscle group. Muscular endurance refers to the ability of a muscle group which can sustain a static muscular contraction or to contract repeatedly within a period of time. It also refers to the ability of the muscular system which can work efficiently
 - Flexibility
 - Flexibility refers to the range of motion around a joint. It is limited by the joint structure, muscle size, ligaments and so on.
 - Body Composition
 - Body composition refers to the relative percentages of fat and lean body mass.
 - Neuromuscular Relaxation
 - Neuromuscular Relaxation refers to the ability to reduce or eliminate unnecessary muscle tension in different muscle groups.
- 2.1.4 Advices of exercise: Physical fitness cannot be immediately achieved through physical training solely. It can only be improved by prolonged period of regular exercise and healthy lifestyle.
- Experts suggest one should accumulate 30 minutes of moderate exercise per day in most of the time in a week. Study shows that it can effectively prevent serious and life-threatening chronic diseases.
 - Exercise for 30 minutes does not mean the person must do the same type of exercise continuously. It can be exercise in all forms, including activities in daily life (e.g. hurrying from train station to classroom and doing domestic chores)
 - Example: Moderate exercise :
 - Heart rate during exercise ranges from 50% to 85% of maximum heart rate
 - Maximum heart rate = $220\text{bpm} - \text{age}$
 - Assume you are 20 years old, your maximum heart rate = $220 - 20 = 200\text{bpm}$
 - Target heart rate of moderate exercise = from 100bpm to 170bpm

2.2 Advantages and Myths of Exercises

2.2.1 Advantages of Exercises

- help to increase cardio-respiratory endurance, improve blood circulation and prevent chronic diseases (e.g. diabetes, coronary heart disease and high blood pressure)
- strengthen muscles can reduce the risk of joints injury (i.e. knees and ankles), appropriate workout can even relieve pain
- improve the mobility of joints, promote agility and reduce injury
- Weight-bearing exercise, e.g. Jogging, rope skipping, ball games, etc, can strengthen bones and increase density, thus reduce the risk of osteoporosis
- speed up metabolism and reduce excessive fat, thus, contribute to weight control and prevent obesity
- improve psychological endurance
- relax, relieve stress, eliminate pressure psychologically and boost confidence
- strengthen immune system and avoid diseases
- extend social network and build up good interpersonal relationships, improve communication skills and social skills

2.2.2 Myths of exercises

- Myth: Exercise is beneficial when it causes tiredness. More vigorous exercise is better.
Fact: We should avoid overtraining and prolonged exercise. Otherwise, it may cause injury.
- Myth: All types of exercise can burn fat effectively.
Fact: Different exercises consume different amount of energy and have different effects.
- Myth: Strong and powerful muscles signify a healthy body. Thus, weight training is the most wholesome.
Fact: Health does not directly relate to body shape. Having strong muscles is not equivalent to having a healthy body. Other sports such as jogging and ball games can increase cardiovascular endurance are also good for health, though they are not as effective as weight training in strengthening muscles.
- Myth: A cold water shower after exercise helps to release body heat.
Fact: As exercise induces metabolism, a large amount of heat energy generated by exercise has to be released. To achieve this, blood vessels would dilate and our skin would start sweating to foster heat loss. This process would last for a period of time. Therefore, a cold water shower immediately after exercise would cause vasoconstriction and heat energy of the body cannot be evaporated normally. We should have cool downs after exercise and not to have cold water shower until sweat on our skin surface is evaporated. In fact, it would be best to have warm water shower after training. Improved circulation induces loss of heat energy and helps to alleviate tiredness.
- Myth: HIIT and TABATA (High Intensive Interval Training) can provide high efficiency training outcome by only 7 minutes
Fact: HIIT and TABATA can help fat burning more effectively, and increase the metabolic rate after exercise. This is recommended to have sufficient warmup, cold down and stretching before and after training, as HIIT involved lots jumping, bouncing, sprinting, high energy demanding and high range of motion movement.

2.3 Sports and Diet

- Avoid exercise with an empty stomach to prevent hypoglycemia and prevent fainting
- Vigorous exercise should be avoided after meals or eating too much as it would deter secretion of the digestive system and peristalsis of the digestive tract. Also, blood would flow to muscles all over the body during exercise and less blood can reach stomach and other digestive organs. This may cause dyspepsia,
- When hypoglycemia occurs during and after exercise, we should intake some quickly digested food to raise blood sugar level, such as sugar cube and intake sports drinks which contain sugar, electrolyte and water in order to supplement water loss caused by dehydration when sweating.
- Feeling thirsty after exercise is not only due to inadequate aqua of the body, but also attributes to decreased saliva. Rapid intake of large amount of water may cause a low level of blood sodium, which is known as hyperhydration. The best way to rehydrate is to hold water in the mouth for a while in order to moisten oral cavity and throat before drinking water slowly.
- The food pyramid suggests nutrition needs of men can be represented by the ratio of pyramid, with a sparing consumption of fat, oil and sugar.
- Alcohol should be avoided before exercise. Besides it will induce a drop in body temperature, it may cause spasm, deter cognition and generate tiredness easily.
- A frequent-smoking athlete is high risk for lung cancer and has unsatisfactory cardio respiratory endurance.
- Normal body temperature is 37°C and can rise to 39°C after vigorous exercises. Consuming large amount of cold food and beverage such as ice cream and soft drinks subsequently. This is because throat is congestive after exercise, stimulation by cold substances that would causes malfunction in situ, causing sore throat impairs the digestive and absorptive function of stomach, causing dyspepsia or illness in stomach.

3. Sports Safety

3.1 Clothing

- wear comfortable and well-fitted clothing during exercise, with an ease of movement in principle
- Clothing should be high ventilation and quick-drying materials
- When it is hot, we should wear light T-shirts and shorts to reinforce heat release and perspiration.
- To reduce injury, we should choose running shoes with cushioned and lightweight surface but thick and resilient sole for shock absorption.
- We should wear socks made from cotton instead of nylon. Socks should be able to absorb moisture in order to prevent allergic dermatitis.

3.2 Body Condition

- Understand our own physical condition, environment and specialty of the sports before workout in order to have the desired effect.
- After prolonged exercise, circulation would be improved and more sweat is produced to lower body temperature.
- During exercise, energy produced by our bodies would increase rapidly. Evaporation of sweat from the skin surface has a cooling effect and regulates body temperature.
- When heat energy does not dissipate properly or our body is exposed to heat excessively, it would dilute mobility and evoke damages to the body such as cramps, heat prostration and heat stroke.
- Our skin should be fully protected against the sun during daylight hours in hot weather when

we exercise outdoor. Otherwise our skin would be damaged by ultraviolet (UV) radiation, causing sunburn, skin aging and skin cancer.

- To maintain health, we should intake adequate nutrients and exercise daily to induce metabolism in order to consume excessive nutrients (e.g. fat) and prevent its accumulation in body and vein morbidly.
- Salt lose most among minerals in our body during perspiration
- People with frequent exercise would have stronger cardiac muscle. More blood would be pumped out during each contraction, and thus a slower heartbeat.
- Their lungs are strengthened due to training and they would have better vital capacity. Therefore, they would show better endurance when performing physical activities.

- Stop exercise and rest immediately when feeling sick during workout. People with heart disease should avoid any vigorous exercise.
- Cool down after vigorous exercise to resume a normal operation of cardiac vessel system progressively, e.g. jogging and taking a deep breath.
- Stop exercise immediately whenever feeling palpitations or abnormal raise of heartbeat.
- Stop exercise immediately whenever feeling heart ache, dyspnea, dizzying, nausea, abnormal raise of heartbeat and sore joints. Consult a doctor when needed.

3.3 Appropriate Selection of Exercise

- Have a righteous attitude for physical fitness activities: assign appropriate workout approaches and targets according to one's gender, age, fitness and goal following the FITT principle (Frequency, Intensity, Time and Type); exercise according to one's capacity, especially in mountain-climbing, cycling and swimming;

3.4 Safety Guidelines

- Safety of the sports venue should be aware to prevent accidents. Avoid exercise in a wet and dark environment.
- Warm up every time before training, and cool down afterwards
- perform exercise in proper form and carry out correct breathing method (e.g. exhale when exerting and inhale when relaxing during weight train exercises)
- Beware to have proper grounding motion of feet when bouncing and running

3.5 Injuries Treatment and Recovery

3.5.1 Immediate Treatment of Sports Injuries

We can apply the RICE method for minor injury, which includes four steps:

Rest: Resting can help prevent further injury and bruising. Stop and rest immediately after you get injury.

Ice: Icing can lower the temperature of the wound and the surrounding tissue to reduce damage. We should wrap fragmented ice with plastic bags or towels, or place a towel on the injured area before applying ice to prevent frostbite.

Compression: This means wrapping the injured area to prevent swelling. Wrap the affected area with an elastic medical bandage.

Elevation: Raising the sore body part above the level of your heart. Doing so reduces pain, throbbing, and swelling.

3.5.2 Recovery after exercise

- It is normal for exercise to be followed by muscle soreness. Fatigue is felt after vigorous exercise or matches. Stretching after exercise can reduce the risk of muscles spasms and relieve soreness, thus, alleviate tiredness more effectively and accelerate to retrieve energy.
- Having a warm water bath afterwards can speed up the release of lactic acid which caused by workout. It is also a way to alleviate tiredness and retrieve energy.

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