

The health benefits of physical activity far outweigh the possible risks. Adults and older adults who participate in physical activity should be aware of the potential risks associated with physical activity. Due to physiological changes with age, they are easily affected by physically adverse events during exercise periods.

Reduce the risk of injuries or adverse events

- Individuals who are planning to become more physically active than they are now should do the Physical Activity Readiness Questionnaire (PAR-Q)
- Individuals with limitations, disabilities or with chronic conditions should follow their doctor's advice on the volume and types of physical activities that are best for them
- Older adults who are concerned with the risk of falling should follow their doctor's advice before participating in physical activity programmes
- Beginners should gradually work towards meeting the recommended 150 minutes of moderate to vigorous physical activity per week.

**Individuals should take note of the following:**

#### Injury

- Increase the intensity of their physical activity gradually. Exercising too much or too fast can cause injury
- Warm up before physical activity to prepare the mind and body for strenuous activities. For greater effectiveness, perform warm up exercises for at least 5 to 10 minutes at light- to moderate-intensity. It gradually increases the heart rate and breathing, and is usually done at a lower intensity from the main activity. It increases the blood flow to the muscles and helps decrease the likelihood of injuries during the main activity
- Cool down after physical activity for at least 5 to 10 minutes at light- to moderate intensity. Cooling down involves slowed-down movements and stretching to allow gradual decrease in heart rate and breathing to pre-exercise levels
- Select the appropriate attire for their physical activity. Certain types of physical activity require specific equipment and protective gear to reduce any risk of injury
- Stop the physical activity immediately if they experience chest discomfort, pain, dizziness or other unusual symptoms
- Refrain from exercising when they have fever, viral infection or are recovering from an illness
- Jog on soft, even surfaces such as levelled grass field, a dirt path or a track. Hard or uneven surfaces, such as cement or rough fields, are more likely to cause injuries

- Exercise in safe areas. Do not jog alone on dark paths or roads
- Watch out for moving cars when jogging or walking on the street and wear light-coloured clothing with a reflective surface at night so that drivers can see them more easily
- Always face on-coming traffic and remember that drivers cannot see them as well as they can see the vehicles
- Always wear a helmet when cycling. They should ride in the direction of the traffic and try to avoid busy streets. They should also use lights and reflectors at night

#### Food intake

- Avoid any strenuous physical activity for at least 2 hours after a meal
- Wait for about 20 minutes before eating if they have just completed any vigorous-intensity activity
- Bring a small snack along to keep up energy level if they plan to be continuously active for more than 60 minutes

#### Hydration

- Always begin any physical activity well-hydrated. Consume about 500ml of water or isotonic/sports drink before physical activity
- Adopt a regular drinking pattern (250-500ml each half hourly) to enhance fluid absorption during exercise. Drink at a comfortable rate and amount to prevent bloating and discomfort.
- Continue to re-hydrate over the next few hours to replace fluid losses after exercise. Consume about 1,000ml of water or isotonic/sports drinks after physical activity
- Avoid strong coffee or alcohol to avoid dehydration

#### Weather

- Avoid exercising during the hottest part of the day from 10.30am to 3.30pm.
- Wear light, loose-fitting, “breathable” clothing
- Cancel or postpone any outdoor activity if there are signs of heavy downpour or lightning
- Seek shelter if caught in stormy weather

**Parents/Individuals should take note of the following recommendations for Children & Youth:**

**Weather**

- Avoid exercising outdoors during the hottest part of the day, i.e. 10.30 am – 3.30 pm.
- Wear light, loose fitting, 'breathable' clothing.
- Be alert to signs of heat exhaustion and heat stroke especially when children and youth are active outdoors in hot, humid weather.

**Hydration:**

- Always begin any activity well-hydrated.
- For a short (i.e. less than 60 minutes), light- to moderate-intensity aerobic activity, plain water is a good choice of fluid.
- For physical activities lasting longer than 1 hour, you may consider isotonic or sports drinks instead.
- Adopt a regular drinking pattern prior to, during and after strenuous activities (e.g. a sports game) – 200-500 ml prior to an activity, and 120-250 ml every 15-20 minutes during an activity.

**Table 5: Symptoms of dehydration**

Age group	Degree of hydration		
	None or mild	Moderate	Severe
Infants	Thirsty, alert, restless	Lethargic or drowsy	Limp, cold, bluish extremities, may be comatose
Older children	Thirsty, alert, restless	Alert, postural dizziness	Apprehensive, cold, bluish extremities, muscle cramps

(Reproduced from D'Anci et al., 2006)

**Food intake**

- Avoid any strenuous physical activity for at least 2 hours after a meal.
- Wait for about 20 minutes before eating if children or youth have just completed any vigorous-intensity aerobic activity.
- Bring a small snack along to keep energy levels up if planning to be continuously active for more than 60 minutes. Good choices are carbohydrate-rich foods such as bananas and raisins.

### Injury Prevention

- Stop the physical activity if children or youth experience chest discomfort, pain, dizziness or other unusual symptoms.
- Discourage children or youth from exercising when they are unwell or are recovering from an illness.