

Paralympic Sports Medicine

Professor Patrick Wheeler

Disabled athletes have always competed in sport at local, national and international level including at the Olympic Games. The spotlight on competition was cast by Dr Ludwig Guttmann who used rehabilitation sport initially for injured servicemen but later opened up to all comers. His Stoke Mandeville Games evolved into international competition and the Paralympics. Note - Para means parallel not paralysed.

1. Who am I ?

Professor Wheeler outlined his career to date. He is now splitting his time between his academic and clinical posts for the UHL at The Leicester General Hospital and the Centre for Sports Exercise and Medicine at Loughborough University.

2. Sports and Exercise Medicine

The most important physical predictor for success is cardiorespiratory fitness. Motivation is important. Sport improves physical fitness and self esteem. Unfortunately the NHS is seen as treatment based rather than concentrating on prevention.

3. Paralympics

The sports in which athletes participate were listed - 22 at Tokyo in 2021.

This number includes badminton and taekwondo for the first time.

The complex issue of the categories of disability required for each sport was raised.

As for able bodied athletes these events are momentous and they are 'driven' individuals.

Athletes from the USA have dominated the competitions to date but China has invested heavily in sport for disabled athletes in recent years.

Boccia and wheelchair rugby were singled out as the only two sports which do not have equivalents at the Olympic Games. Boccia is similar to bowls with athletes throwing a ball from the seated position. Wheelchair rugby was previously known as 'murderball' due to its aggressive full-contact nature. Physical contact between the wheelchairs is permitted. Channel 4 was the official broadcaster of the Tokyo Paralympic Games providing extensive coverage.

It is clear that there is a home advantage for athletes from the host nation.

The sports centre for Team GB at London 2012 was built adjacent to the living quarters and so reducing transit time for home athletes from one to the other.

4. Issues around athletes

For wheelchair athletes the major problems arising are shoulder injuries.

Lower limb injuries are an issue for visually impaired athletes.

In addition jet lag can prove problematic where there is no way of determining the hours of light and dark.

Competitors with spinal injuries at T6 or above must be monitored closely for any evidence of autonomic dysreflexia - an overreaction to a cause below the damaged spinal cord eg a urinary infection, pressure sores, pressure on the scrotum - which should be considered a life threatening medical emergency. Blood pressure can rise alarmingly and a stroke, seizure or cardiac arrest follow.

Making use of a low level dysreflexia is considered performance enhancing and is illegal. The athlete's blood pressure is measured at 'spot checks' prior to competition.

Mention was made of heat illness, managing hydration in wheelchair users and travel with disabled athletes.

Proper Preparation Prevents Poor Performance

In the Question and Answer Session Professor Wheeler outlined how he was attracted to the specialty. He spoke of pressure on athletes to perform and described the doctor as part of the team in contrast to the roles of GP or specialist. He commented on the overtraining syndrome and that for many injuries surgery is not required.