

# Short Stature



## **An Introduction to Taekwondo for people with Dwarfism**

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## Introduction

**Welcome to the first resource for people with Dwarfism from British Taekwondo.**

This resource has been produced by British Taekwondo, with support from Dwarf Sports Association UK, coaches and the wider Taekwondo community.





# All about Dwarf Sports Association UK

**The Dwarf Sports Association UK is recognized nationally by prominent disability sporting groups all over England and are officially recognised as a National Disability Sporting Organisation (NDSO) for people with dwarf conditions.**

In 2011 the Association changed its name from the Dwarf Athletic Association to the Dwarf Sports Association. This change created a holistic understanding of sport for dwarfs, including lifestyle and leisure activities, mental health, and wellbeing. They work with health professionals and schools to ensure the correct information is passed onto families, regarding a child with dwarfism and sport.

The DSAuk promotes grass roots participation across a range of sports, starting with young athletes from the age of two. They use sport as a tool to break down barriers and differences within society and to encourage confidence and empower their members. It is so important that their members feel valued and that they can go on and achieve anything in life. They empower people to go on to enjoy all kinds of sport in which they can compete equally. Should they wish to go further we can guide them on to the correct pathway to world class performance within the National Governing Bodies of Sport. Some of the most successful Paralympians, Ellie Simmonds and Matt Whorwood have been successful by pushing boundaries, with others now following in their footsteps.

But it is not about being the best, it is about feeling good with who you are and knowing that you can achieve anything you want to do in life as well as in sport.

**Taekwondo is a very versatile, adaptive Martial Art and physical activity that has something for everyone.** It is really great to work with Dwarf Sports Association UK to provide coaching support and participation opportunities for all.

The partnership that has developed between the Dwarf Sports Association UK (DSAuk) and British Taekwondo has been innovative. Martial Arts is an area where previously the DSAuk has stayed far away due to the contact element of the sport. But working closely with British Taekwondo has opened our eyes to the possibilities Taekwondo has to offer for people with Dwarfism. Concentrating on the Poomsae element of the sport allows people with Dwarfism to partake in the sport in a safe manner, but also allows them to have a pathway into competitions as well.

Working with the Disability Development Officer to create this coaching guide, we hope it will help grow and develop these opportunities for people with dwarfism throughout the UK.



We are thankful for the support of British Taekwondo and look forward to seeing how this partnership can develop further in the future.

**Mike Pope**  
Dwarf Sports Association UK National Partnership Officer



**Ian Leaf**  
Chief Executive,  
British Taekwondo

# Understanding Dwarfism



- **Dwarfism is a genetic condition from birth, known as a skeletal dysplasia.**
- The gene (FGFR3), which interferes with skeletal development, was discovered in 1995.
- **The most common form of dwarfism is “Achondroplasia”.**
- There are over 200 dwarf and restricted growth conditions with the rarest form being “Primordial Dwarfism”.
  - **The condition is typified as having short arms and legs and an average length trunk (sitting height is in average range for age).**
- 80% of people with dwarfism are born to Average Height parents.
- **Birth incidence for people living with Achondroplasia in the UK is estimated at approx. 1 in 25,000. (approx. 2,500 people)**
- It is estimated there are up to a further 2,500 people living in the UK with other dwarf and restricted growth conditions.

# Skeletal and other issues in Dwarfism

## Spinal Stenosis

- Vertebral canal smaller than average. Narrowing can compress spinal cord.
- Can lead to serious neurological complications.

Symptoms: exaggerated tendon reflexes, shaking, numbness or tingling in the legs, limping, and muscular weakness.

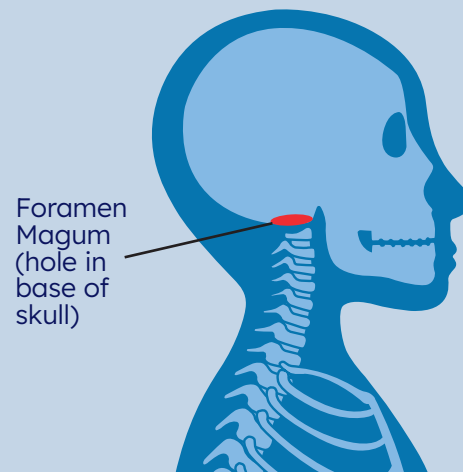
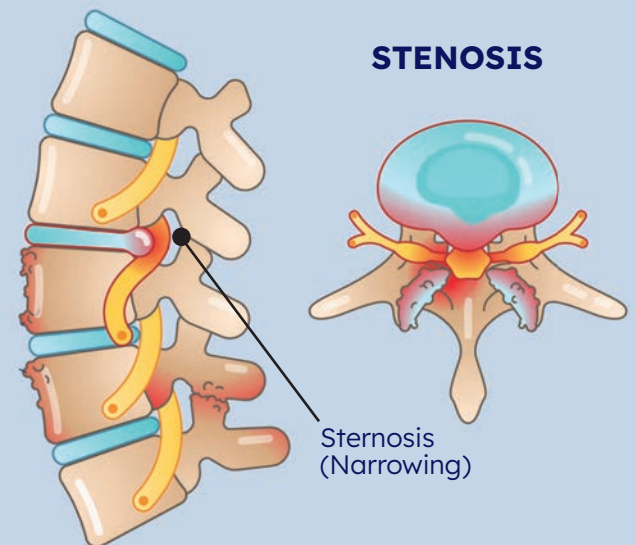
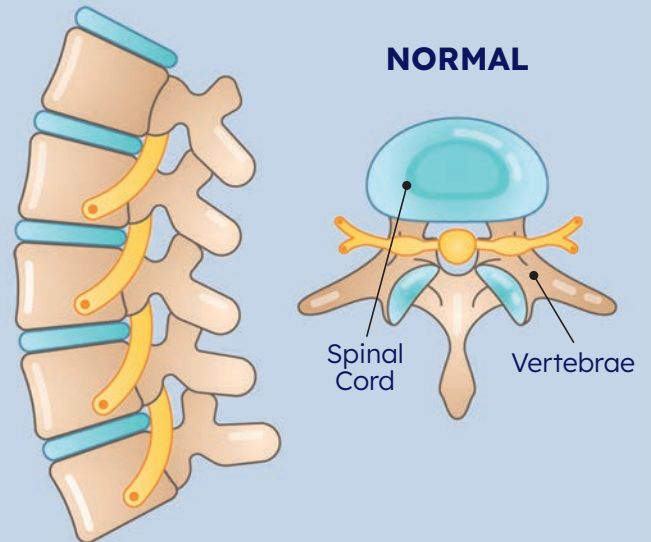
- These problems generally occur at the end of adolescence.

## Bowed Legs (Genu Varum)

- Extent varies from person to person.
- Leg bones grow at different rates, Ligaments more flexible than normal.
- Symptoms: visible difference in alignment of legs, difficulty walking, joint pain in hips, knees and ankles

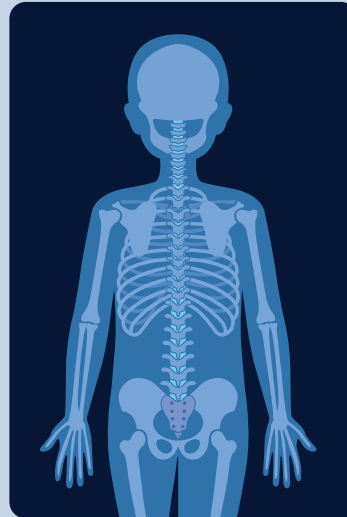
## Malformed Foramen Magnum

- Hole in the skull where the spinal cord enters the head.
- Normally spherical, but if it is malformed, it is mis-shapen.
- Hyper-extension or pressure on the cervical vertebrae presents a potential risk of compressing the spinal cord, causing serious injury.

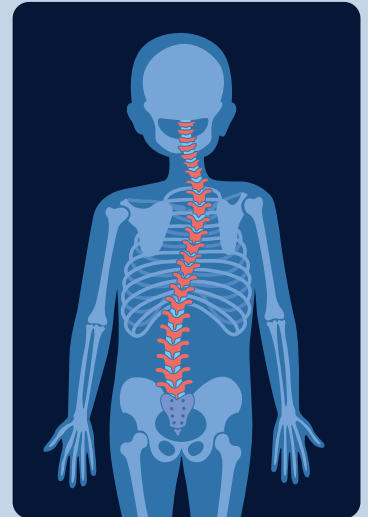


## Scoliosis

- Abnormal curvature of the spine when viewed from front or back.
- Develops in early adolescence and pain worsens into adulthood.
- Girls and women more affected than men.
- Can occur in thoracic (upper) or lumbar (lower) back areas.
- Symptoms –Shoulder blade and/or pelvis may stick out on one side of body.



Normal Spine

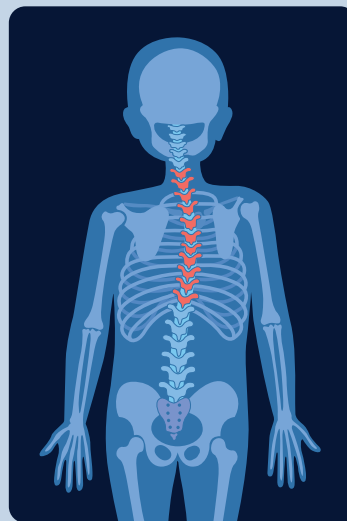


Scoliosis

## Kyphosis/Lordosis

- Abnormal curvature of the spine when viewed from the side.
- Kyphosis affects thoracic (upper) back, seen as outward arching of the back.
- Kyphosis can worsen any spinal stenosis present and impair spinal function.
- Lordosis affects neck and lumbar (lower) back.
- Both start in infants due to low muscle strength, flexible ligaments, large heads, and inability to keep back straight.
- Brace often worn to maintain posture whilst strength develops.

### TYPES OF SCOLIOSIS



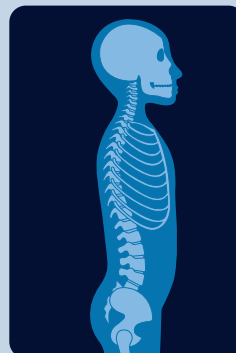
Thoracic



Lumbar

## Reduced Muscle Tone (Hypotonia)

- Results from cervical stenosis
- Can cause motor delays in younger children (6 -12 months behind)



Normal Spine



Lordosis



Kyphosis



# Considerations for Coaches

**British Taekwondo and Dwarf Sports Association UK recommend Poomsae for individuals with dwarfism as it is non-contact. We would not encourage individuals with dwarfism to participate in Kyorugi due to the stress caused on the spine.**

There are performance pathway opportunities for people with dwarfism through the Para-Poomsae Performance Pathway. This may present opportunities to compete for Great Britain's Para Poomsae Squad at international competitions at European and World Championships.

People with Achondroplasia or genetic skeletal dysplasia (other forms of dwarfism) will have:

- Exaggerated Lumbar Lordosis (curvature of the lower back)
- Spinal Stenosis (narrowing of the spinal cord).

Both of which will increase the jarring forces through the spine on impact

When coaching someone with dwarfism, it is important to understand the force which each physical activity involves and how it may affect their spine. The coach is responsible for ensuring the safety of their participants and making sure they are physically able to participate in the sessions.

**If someone with dwarfism joins your club, the coach should speak with the individual and their parent/guardian before starting taekwondo. They need to ask what they are comfortable doing in terms of activity.**

If they are not able or comfortable doing something, the coach should ensure these activities are not done by that individual, they then need to find them an alternative or adaptation. They should not just be asked to sit out.





# Considerations for Coaches

The Dwarf Sports Association UK recommend that people with dwarfism should **AVOID**:

- Any activity involving impact to the spinal area.
- Any activity or skills which involve repeated jumping, rebounding, or landing on a hard surface.

If your club has matted areas, it would be best to do activity on them to reduce some of the stress on the spinal cord. If your club does not have mats, please be incredibly considerate of individuals with dwarfism.

People with Achondroplasia or genetic skeletal dysplasia (other forms of dwarfism) may also have:

- A malformed foramen magnum (misshapen hole in base of skull where the spinal cord enters the head).

Dwarf Sports Association UK recommend that people with dwarfism should avoid any activity that causes a compression at the base of the neck or lower back and any activities where there is potential to put pressure on, or cause impact to the head or neck. This will include activities like push ups, pull ups, squats and star jumps etc.

These factors are fairly simple to understand and consider, but they need to be made clear to all coaches and helpers to ensure your participants feel safe, understood, and included at their club.



# Welcoming members with Dwarfism to your club

## ADVERTISING

**The promotion and marketing of your sports session, club or activity is important to ensure people are aware of what your club offers, where you are located and what activities and programmes are accessible.**

The way in which individuals who have dwarfism communicate and source information may be different to other people, so it is important to consider the following when advertising sessions:

- Advertise your sessions with local and national organisations for people with Dwarfism/Short Stature/ Little People such as Dwarf Sports Association, Little People UK, and Restricted Growth Association.
- Identify other sources of promoting.

This could be an excellent method to promote your club or sessions to your target audience and engage with individuals with Dwarfism. Dwarf Sport Association can advise on your local contacts. Contact DSAUK for further information.

- Use social media to promote your services. Evolving technology makes social media a very accessible and popular medium for all.
- Use appropriate images of athletes with dwarfism in your marketing material. This will directly speak to your target market and help to inspire other people with Dwarfism to take part.





# Terminology

**It is important to always use the correct terminology when referring to individuals with Dwarfism.**

Using the wrong type of language can create a barrier so by using appropriate terminology, it will help you build lasting relationships with your participants and grow your participation programmes.

## **Words to use - people with Dwarfism/Short Stature or Little People?**

While it is important to use correct terminology, each person is different and the terminology they prefer will be different.

Listen to the individual and ask them what words they would prefer you to use.





# Helpful Sources

## MORE ABOUT DSAUK

The DSAUK often set up events and taster sessions for different sports across the country. These sessions are a great way to meet other families and individuals with dwarfism. The DSAUK advertise these sessions regularly on their website and social media accounts.



On the DSAUK website there is a bank of information and resources to support people with Dwarfism, their families, friends, school, and workplaces.

If you would like to speak with one of the friendly team at DSAUK, you can visit their website and complete the Contact Form.

# Acknowledgement

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**Mike Pope**

Dwarf Sports Association  
UK National Partnership Officer

**Tom Mills**

Dwarf Sports Association  
UK Regional Development Officer

