

## Case Study Meet Tom



### All about Tom

Tom is a happy and loving 11-year-old boy who lives with his family in Northern Ireland. He loves music (especially Metallica!), any toys that make noise (the noisier the better!) and spending time with his family. Tom has Epilepsy (has frequent seizures), a visual impairment and generalized hypotonia (equivalent GMFCS IV). He has fixed AFOs and wears a Lycra suit. Tom uses a wheelchair to get around but can do standing transfers into and out of his equipment (prone stander, Triton chair). He has had a high support anterior walking frame since he was 4 years old and enjoys being in it but doesn't have a reciprocal gait pattern and struggles to initiate movement. Tom is non-verbal but has good understanding and uses a communication device to make his needs known.

### Goal setting

1. Tom would like to follow his dog around the house
2. Tom would like to be able to get to where his musical toys are and use them
3. To improve his leg muscle strength and balance

### Motor skills

- Tom can roll to either side and can get himself into a sitting position
- He bottom shuffles as his preferred way to get around but when facilitated into standing he can maintain that position with handhold support

### Key Measurements

- Inside Leg – 24 in
- Shoulder to Floor – 43 in
- Waist Circumference – 26 in

### Range of movement

|                              |   |       |   |       |
|------------------------------|---|-------|---|-------|
| Popliteal angle              | R | 22    | L | 15    |
| Hip abduction                | R | 46    | L | 47    |
| Knee extension               | R | 12 HE | L | 13 HE |
| Dorsiflexion (knee flexed)   | R | 24 DF | L | 23 DF |
| Dorsiflexion (knee extended) | R | 12 DF | L | 13 DF |
| Hip internal rotation        | R | 43    | L | 45    |
| Hip external rotation        | R | 72    | L | 70    |
| Duncan Ely Test              | R | 128   | L | 126   |
| Hip extension                | R | 12    | L | 15    |

## Case Study

# Meet Tom



### Case Study – Discussion

Why might you choose the MyWay+ when considering Tom's goals?

#### Initial Assessment

**You decide to assess Tom for a MyWay+. Discuss and practice ordering, setting up and transferring Tom into the MyWay+.**

- **Discussion Questions**

1. What size frame and harness would you use for Tom considering his measurements?
2. Set-up the MyWay+ ready for Tom to transfer in. Select options from the table.
3. What considerations are needed when applying the harness?
4. How would you expect Tom to transfer into the MyWay+?
5. Go through the steps for connecting Tom to the frame.
6. Would you use the grey shoulder straps with Tom?
7. How would you expect Tom to transfer out of the frame?

- **Set up MyWay+ for Tom**

#### Assessment review and re-set up

**You've completed the initial assessment but have observed a few issues with how Tom is using the walker. Discuss these concerns and how you could set up the MyWay+ differently to address these issues.**

1. Tom struggles to initiate any steps. What would you do to try to help him?
2. He is struggling to get a reciprocal pattern. Is there anything else you can recommend?
3. What outcome measures could you use to assess if Tom is progressing with his goals?

- **Set up MyWay+ for Tom**

## Case Study

# Meet Willow



### All about Willow

Willow is a funny and chatty 9 year-old girl. She loves playing families and school with her large collection of dolls and also enjoys family movie nights cuddling with her family on the sofa eating lots of popcorn! She looks forward to seeing her friends at school and playing tag with them in the playground. Willow has Cerebral Palsy (GMFCS III). She mainly uses her manual wheelchair to get around but can walk with a low support posterior walker over short distances. Willow has some muscle weakness, especially around her hips, which means that she can sway from side-to-side when using her gait trainer and can tire quite quickly from mobilizing. She also has lower tone in her trunk which means she needs to work harder to keep herself upright. Her most recent CPIP hip x-ray has shown that her right hip Migration Percentage (MP) is 42% and her left hip is 23% and her Orthopaedic Consultant has advised that she needs to be focusing on her hip abductor strength to see if it helps her MP. She has a prone stander and a minimally supportive chair, which she transfers into using a step-around transfer.

### Goal setting

1. Willow would like to play tag in the playground with her friends without getting tired
2. To improve Willow's hip abductor strength
3. To improve Willow's quads strength through mobilizing

### Motor skills

- Willow can pull to stand and cruise (but needs help to properly side-step as she would rather walk forwards)
- She loves coloring books and drawing pictures for her friends

### Key Measurements

- Inside Leg – 21 in
- Shoulder to Floor – 41 in
- Waist Circumference – 25 in

### Range of movement

|                              |   |       |   |       |
|------------------------------|---|-------|---|-------|
| Popliteal angle              | R | 42    | L | 37    |
| Hip abduction                | R | 28    | L | 35    |
| Knee extension               | R | 0     | L | 0     |
| Dorsiflexion (knee flexed)   | R | 21 DF | L | 23 DF |
| Dorsiflexion (knee extended) | R | 5 DF  | L | 8 DF  |
| Hip internal rotation        | R | 73    | L | 66    |
| Hip external rotation        | R | 42    | L | 47    |
| Duncan Ely Test              | R | 125   | L | 128   |
| Hip extension                | R | 12    | L | 15    |

## Case Study

# Meet Willow



### Case Study - Discussion

Why might you choose the MyWay+ when considering Willow's goals?

#### Initial Assessment

**You decide to assess Willow for a MyWay+. Discuss and practice ordering, setting up and transferring Willow into the MyWay+.**

- **Discussion Questions**

1. What size harness would you use for Willow considering her measurements?
2. Set-up the MyWay+ ready for Willow to transfer in. Select options from the table.
3. What considerations are needed when applying the harness?
4. How would you expect Willow to transfer into the MyWay+?
5. Go through the steps for connecting Willow to the frame.
6. Would you use the grey shoulder straps with Willow?
7. How would you expect Willow to transfer out of the frame?

- **Set up MyWay+ for Willow**

#### Assessment review and re-set up

**You've completed the initial assessment but have observed a few issues with how Willow is using the walker. Discuss these concerns and how you could set up the MyWay+ differently to address these issues.**

1. Willow mobilizes around the therapy room but is pawing at the floor and is scooting, rather than properly stepping. What could you do to try to improve her gait?
2. Can you set-up the frame in a way that would help Willow work on her hip abductor strength?
3. Willow struggles to truly side-step with her right leg and tends to over-flex her hip instead. What could you do to help her?
4. Could you try any other adjuncts/accessories with Willow to help improve her leg muscle strength?
5. What outcome measures could you use to assess if Willow is progressing with her goals?

- **Set up MyWay+ for Willow**