

# AT 205: HOW DO I DETERMINE WHERE THE STUDENT CAN ACCESS A SWITCH?

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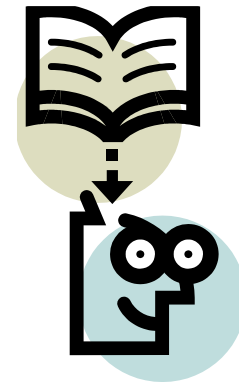
# Introductions

- Who I am
- Goals?
  - Put in chat box



# What are we covering?

- The Ideal Switch Site
- Switch Site Hierarchy



# Access: How?

- Switch use varies depending on what you are accessing
  - Power wheelchairs and switch toys
    - sustained contact/pressure
    - quick release
  - Scanning
    - anticipation and waiting
    - quick activation
    - timing



# Let's get Practical!

- Think of a client you are working with
- As we move through the course, think of where you may try and place a switch for access to assistive technology

# Ideal Switch Site

- An ideal switch site uses:
  - small movement
  - isolated movement
  - volitional movement
  - controlled activation
  - sustained pressure
  - controlled release

# An ideal switch site uses:

- A small movement
  - avoiding the “big wind-up”
  - smaller movement increases speed, accuracy in scanning
- Lauren
  - Efficiency comparison, hand vs. head



# An ideal switch site uses:

- An isolated movement
  - not resulting in overflow
  - Travis
    - Hip rotation with switch activation





# An ideal switch site uses:

- A volitional movement
  - not part of a pattern of movement
  - not part of a reflexive movement
  - under voluntary control
  - Sarah and the boys



# An ideal switch site uses:

- Controlled activation
  - activation travel
  - activation pressure
    - Brandon – midline placement, switches in close proximity, light touch
  - speed
  - accuracy
    - Spencer – could activate over right hand, but not with speed and accuracy. Solution – opened seat to back angle; reduced UE flexion

# An ideal switch site uses:

- Sustained pressure
  - in power mobility
  - fatigue issues
- Julian
  - Small travel and activation pressure

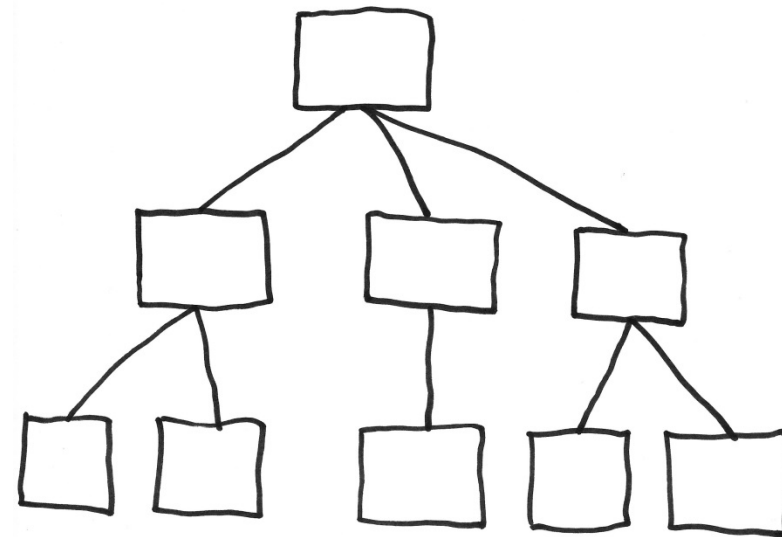


# An ideal switch site uses:

- Controlled release
  - timing (particularly in power mobility)
  - consistency
  - ability to release under stress
- Amy
  - Getting stuck on switch behind head

# Questions?

# Switch Site Hierarchy



# Switch Site Hierarchy

- Hands
- Head
- Mouth
- Feet
- Lower Extremities
- Upper Extremities

# Switch Site Hierarchy

- Hands
  - horizontal placement
  - vertical placement
  - under tray placement
  - finger movement
  - pincer
  - grasp





# Horizontal placement - video



# Vertical Placement



# Under Tray



# Finger movement





# Finger movement



# Finger movement - video



# Finger Movement

- Microlight on Stealth Gooseneck



# Finger movement - Video

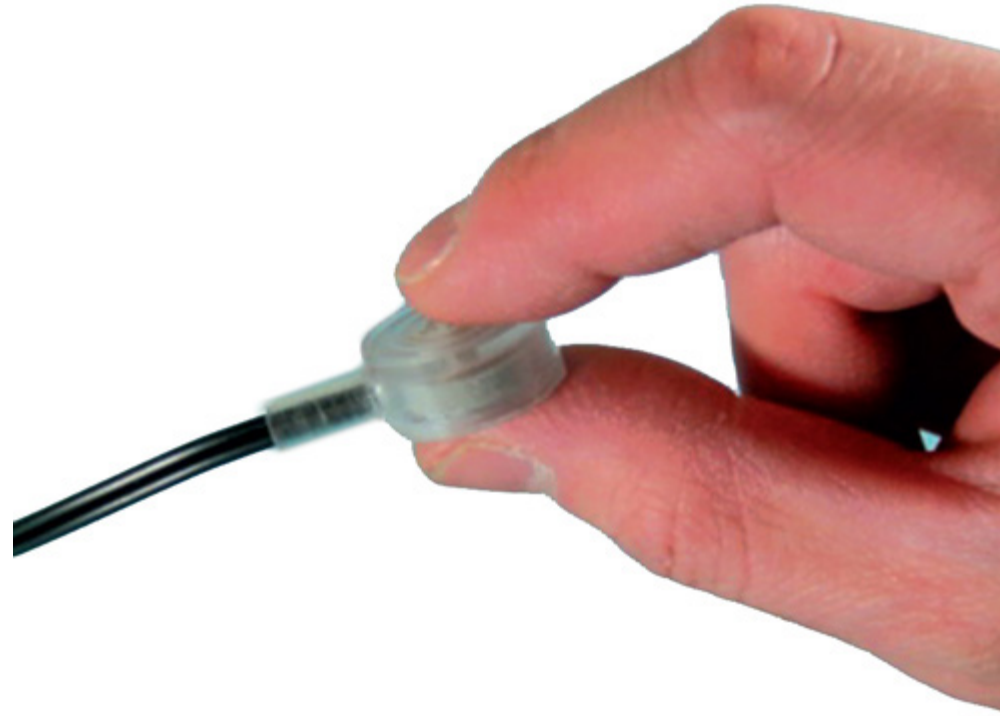




# Wrist Extension



# Pincer



# Grasp



# Switch Site Hierarchy

- Head
  - rotational vs. lateral flexion
  - cheeks
    - rooting reflex
  - temple
    - glasses
    - eye injuries
  - side of head



# Movie Time!



# Question Time...

- What do I connect the switch to while evaluating various switch sites?



# Side of Head



# Side of head





# Side of head



# Side of Head



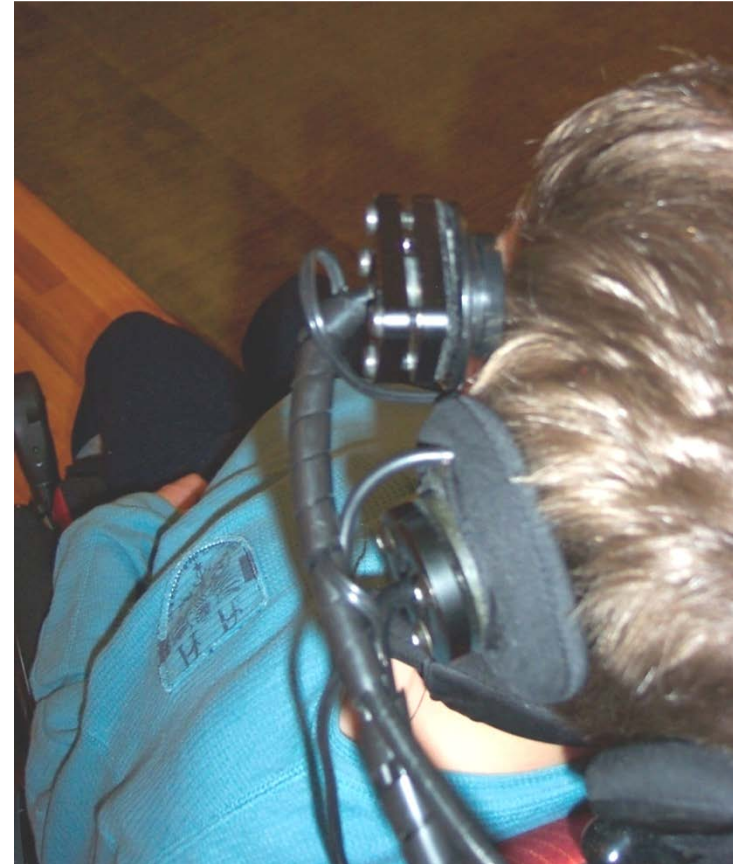
# Movie Time!





# Side of Head: mounting idea

- Stealth headrest
  - Replace lateral pad with switch



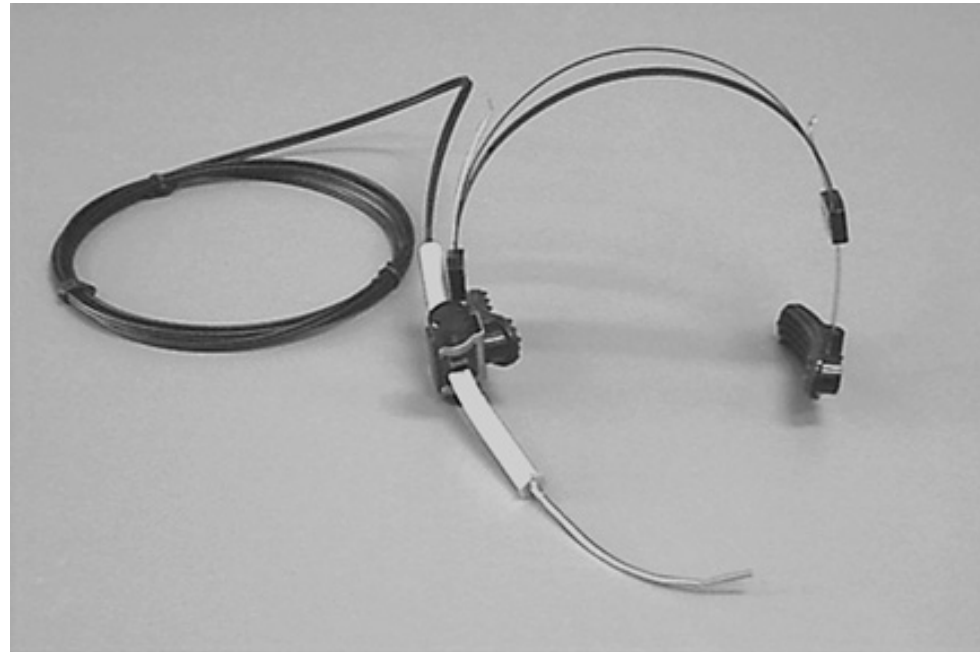
Stabilizing against the lateral spot pad

# Movie time!



# Switch Site Hierarchy

- Head
  - chin
    - under chin
    - side of chin - Abby
    - can use jaw or head movement



# Switch Site Hierarchy

- Head, less used sites
  - behind head
  - Forehead - Tom
  - eye brow
  - eye blink

# Switch Site Hierarchy

- Mouth
  - sip and/or puff
    - lip closure
    - intra oral pressure/control
  - tongue
    - protrusion against cheek
    - protrusion forward - Vincent



ASL sip n  
puff mount



ASL mini fiberoptic  
mount



# Question Time...

- My client can access switches in several areas. How do I pick which is best?

# Switch Site Hierarchy

- Feet
  - above foot (dorsiflexion) - Kelly
  - below foot (plantar flexion)
  - sides of foot



# Foot placement - Video



# Switch Site Hierarchy

- Lower extremities
  - medial knee
  - lateral knee - Alexi
  - superior knee - Jacob



# Medial Knee



# Medial Knee





# Lateral Knee



# Question Time...

- My client needs more than 1 switch. How do I choose where to put each switch?
  - PWC – strongest Forward, weakest Reset

# Switch Site Hierarchy

- Upper extremities
  - above shoulder
  - behind elbows
  - forearms



# Above Shoulder



# Movie Time!





# Movie Time!





# How Does This Apply to the Classroom?

- If the client does not have independent switch access, it is difficult for team members to accept that any assisted access is intentional
- The optimal switch location can make the difference between dependent, assisted and independent access
- Goal is automaticity so that the student can focus on the task, not where the switch is
- No matter where the switch is located, it can access technology for education and communication

# Let's get Practical!

- Where do you think you might try and place a switch on the client you identified?

# Questions?

Thanks!

# Upcoming Webinars:

- 9/18/18
- AT 206: How do I determine what type of switch the student can use?
  
- 10/17/18
- AT 207: How do I develop switch skills?

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