

# HDSA welcomes you to Caregiver's Corner

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Facilitating Access and Communication Through the Use of Assistive Technology

Presented by,

Kathleen Samulski Assistive Technology Consultant

kathleen.samulski@lpps.info





#### Agenda

- Overview of Assistive Technology (AT)
- Discussion of the SETT/IETT process for selecting AT
- Focus on HD symptoms
- Relate HD symptoms to tasks
- Connect AT tools to tasks
- Q & A



#### Who am I?

- Mother
- Wife
- Educator
- Friend
- Daughter
- Caregiver



#### What is Assistive Technology (AT)?

- Assistive technology: includes assistive, adaptive, and rehabilitative devices for people with disabilities—ranging from low to high tech.
- Process: Also refers to the process used in selecting, locating, and using them.
- Promotes Independence: AT promotes greater independence by enabling people to perform tasks that they were formerly unable to accomplish, or had great difficulty accomplishing
- Breaks down Barriers: Provides enhancements to or changed methods of interacting with the technology needed to accomplish such tasks.



#### **IETT/SETT Model**

I= Individual

**E= Environment** 

T= Task

T= Tool

Based on Joy Zabala's SETT framework http://www.joyzabala.com/Documents.html



#### Individual

- What are the individual's current abilities?
- What are the individual's special needs?
- What are the functional areas of concern?
- What does the individual need to be able to do that is difficult or impossible to accomplish independently at this time?



#### **Environment**

- What activities take place in the environment?
- What is the physical arrangement?
- What assistive technology does the individual have access to or currently use?



#### Task

What specific tasks occur in the environment?

#### Tool

- Tools are devices and services—anything that is needed to help the student participate and access learning programs.
- Are the tools being considered on a continuum from no/low to hightech?
- Are the tools human-centered and task oriented and reflect the person's current needs?
- Are tools being considered because of their features that are needed rather than brand names?



#### What makes good AT?

- Able to level out the playing field
- Work in cross-settings
- Portable
- Easy to maintain
- Affordable to replace and/or maintain
- Good and reliable technological support
- Accessible training format



#### So what do we know about the individual?

We know that the individual has Huntington's Disease

- What is Huntington's disease?
  - Huntington's Disease: a devastating, hereditary, degenerative brain disorder for which there is, at present, no cure and only one FDA-approved treatment (Xenazine) for a symptom of HD.. HD slowly diminishes the affected individual's ability to walk, talk and reason.
  - How many times have we read and heard that definition?
    - Taken from HDSA website: http://www.hdsa.org/



## I=Individual

- Depression/Mood swings
- Forgetfulness/Shortterm memory
- Clumsiness/Lack of coordination
- Impulse Control

- Involuntary twitching and or movements of the head, trunk and limbs
- Walking/Mobility
- Speaking
- Swallowing
- Cognitive Ability



#### E=Environment

- Family homes
  - One floor
  - Two floor
- Apartments
  - Floors
  - Access to sidewalks, etc
  - Elevators

- Group homes
- Assisted living
- Hospitals
- Nursing homes
- Work
- Automobile
- Other



#### T=Task

- Connected to the environment
- At work
- Run the home
- Stay independent at home
- Care for family
- Caring for self
- Getting around the community





## Tool

So, what are some tools that can be effectively used to better enable our loved-ones with HD?



## So Individuals with HD may struggle with:

- Speaking/Communication
- Forgetfulness/shortterm memory
- Depression/Mood swings
- Clumsiness/lack of coordination

- Involuntary twitching and or movements of the head, trunk and limbs
- Walking/mobility
- Swallowing
- Cognitive ability
- Impulse Control



## Promote Independence and Break Down Barriers

- Speaking/Communication
- Forgetfulness/short-term memory
- Depression/Mood swings
- Cognitive ability
- Impulse Control



## Speaking and Communication

- AAC Device with Dynamic Display
- High Tech
  - Portable electronic devices with text to speech capability
- Low Tech
  - Posters, folders, portable cards

- Access by
  - Direct Select
  - Mouse use
  - Scanning and Switch access
  - Eye gaze
  - Mounting Arms



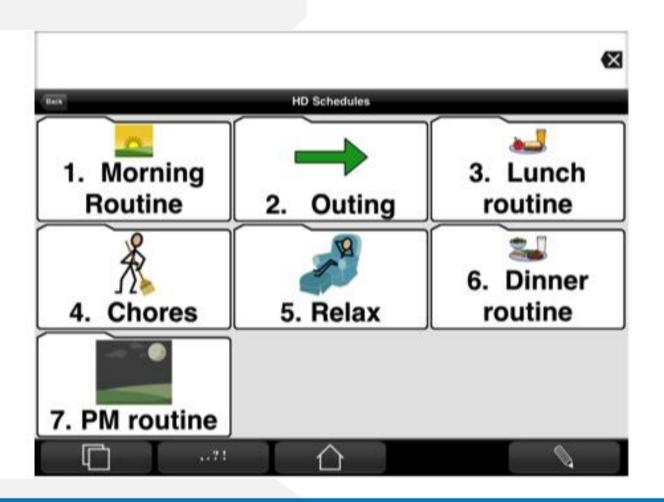
## Programming for Communication

- Start early—even before AT might be beneficial
- Can support the continuum of the day
- Break down the task

- AM Routines
- Break down tasks
  - Brush teeth
  - Wash face
  - Get dressed
  - Eat breakfast

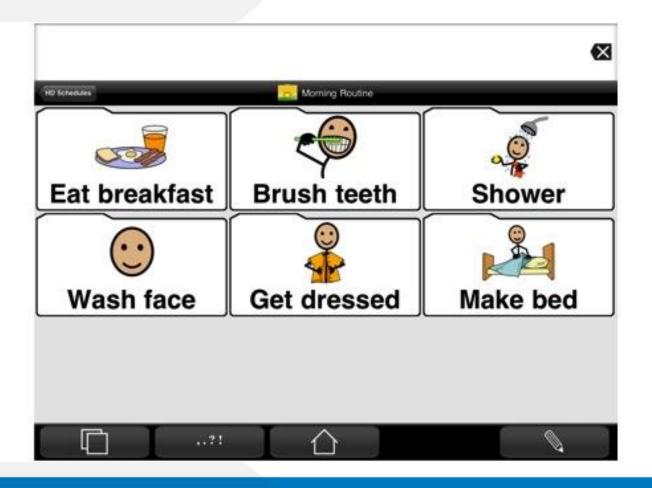


## Example of Dynamic Display Device



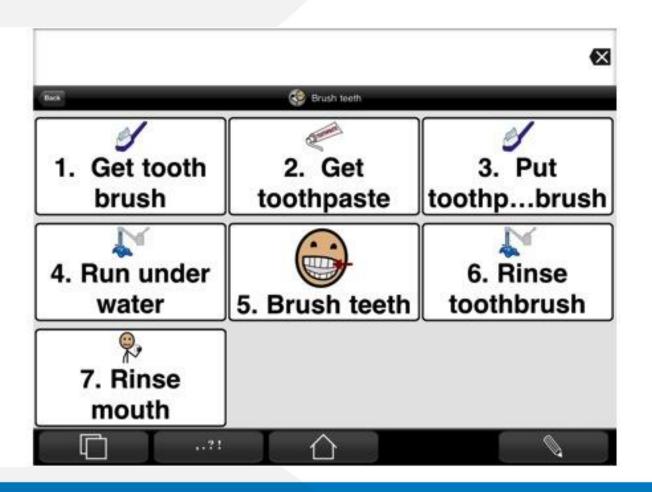


## Sub-Menu

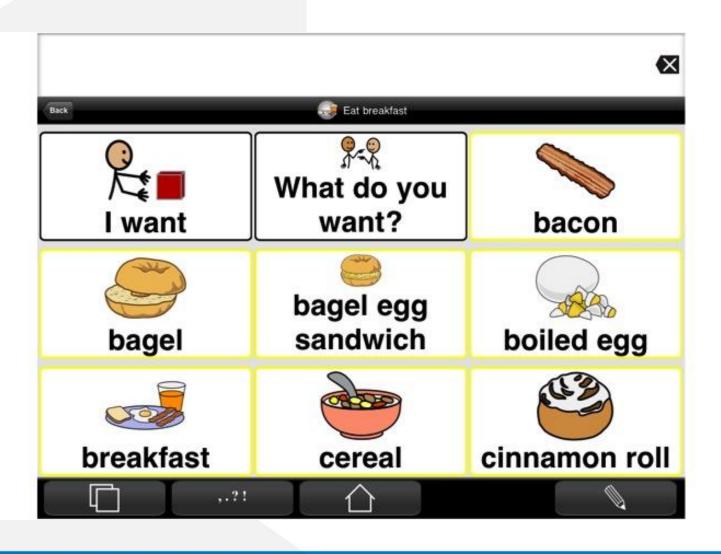




## Steps and Reminders







## Short-term memory and forgetfulness

- Timer
- Visual Schedules
- Picture Phone
- Medication Reminders

- Pill Organizer
- To Do lists
- Personal Digital assistant
- Photo reminders
- Video reminders



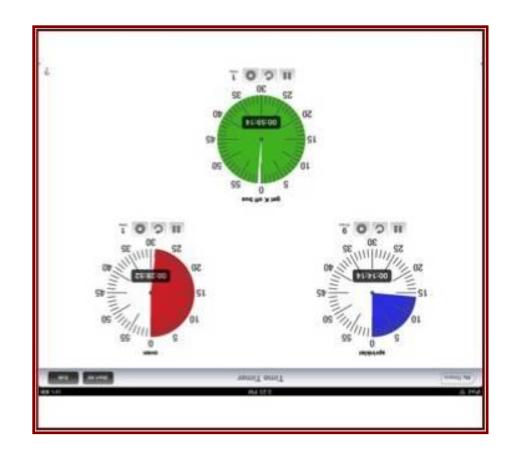
## **Visual Timers**





## **More Timers**





#### Visual Schedules







## **Medication Reminders**







## Depression and Mood Swings

#### **Calming**

- Music
- Shows/movies
- Games
- Social Networking
- Digital books
  - Speech to text

#### **Therapeutic**

- Systematic procedure in place
- Habitual
- Use of many AT systems for memory loss
- Predictability and routine keep mood more stable



## Lack of coordinati

- Word Prediction
- Adapted mice
- Alternative access
  - Touch Screen
  - Switch Access









Word prediction reduces keyStrokes. It can reli





#### iPod iPad Technology

- What are Apps?
  - Look like a shortcut
  - Function as software
  - Have unique purposes
  - Many are free!
  - Commonly .99-3.99

Facebook App









#### **iPad**



- 9.5" x 7.3"
- .34" thick
- Weights 1.3 pounds
- Includes
  - Camera
  - Digital recorder
  - Built in microphone
  - Built in speakers
  - 10 hour battery life



Questions down the road? Contact:

Kathleen Samulski Assistive Technology Consultant

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**Questions & Discussion** 

