



PARKINSON'S DISEASE

## SPOTLIGHT ON PARKINSON'S DISEASE: LIVING WELL EVERYDAY

THURSDAY, JUNE 29, 2017

**apda** AMERICAN  
PARKINSON DISEASE  
ASSOCIATION  
Strength in optimism. Hope in progress.

Support for this  
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ACORDA<sup>®</sup>  
THERAPEUTICS



## WELCOME AND INTRODUCTIONS



**Stephanie Paul**

*Vice President Development and Marketing*  
American Parkinson Disease Association

**apda** AMERICAN  
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## WELCOME AND INTRODUCTIONS



**Leslie Chambers, MPH**  
*President and Chief Executive Officer*  
American Parkinson Disease Association

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**Stephanie Paul**  
*Vice President Development and Marketing*  
American Parkinson Disease Association

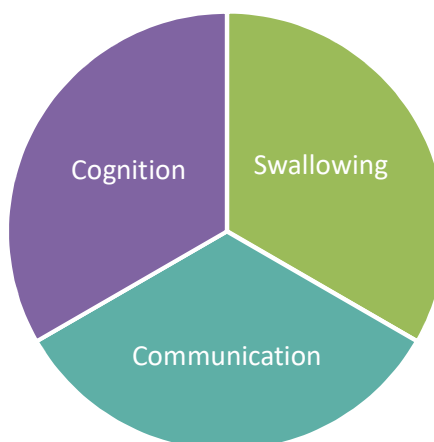


## PRESENTATION



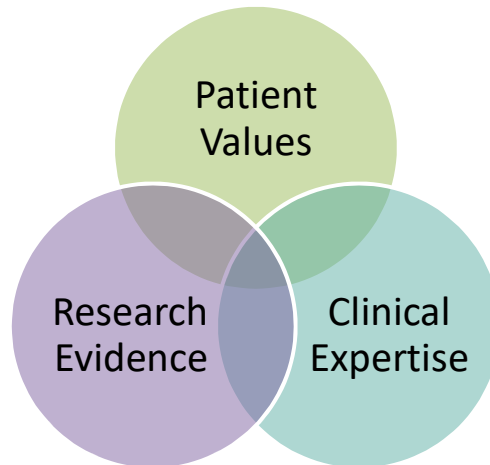
**Lisa Sommers, MA, CCC-SLP**  
*Clinic Director, Center for Language, Speech and Hearing*  
*Clinical Assistant Professor*  
*Department of Communication Disorders*  
*University of Massachusetts Amherst*  
*Amherst, MA*

## OVERVIEW

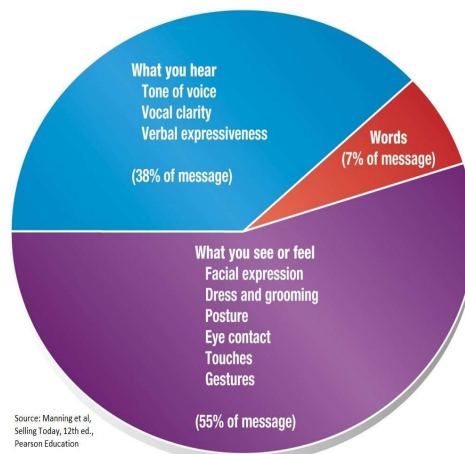




## OVERVIEW



## COMMUNICATION INVOLVES SO MUCH MORE THAN WORDS...



Source: Manning et al,  
Selling Today, 12th ed.,  
Pearson Education

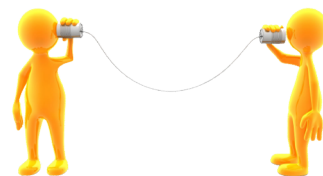


## COMMUNICATION CHANGES COMMON WITH PD

- About 90% of people with PD will experience changes in communication
- Changes can be very subtle and can occur early in the disease process
- Areas affected:
  - breath support
  - voice production
  - speed and accuracy of articulation
  - inflection of voice
  - reduced facial expression, fewer gestures
- Sensory disconnect
- Leads to social isolation and reduced quality of life

## SPECIFIC SPEECH AND VOICE SYMPTOMS

- Soft voice
- Reduced speech clarity
- Hoarse, breathy and/or harsh voice quality
- Monotone voice (reduced stress and inflection)
- Changes in rate of speech
  - Rate of speech sometimes slows down excessively, while others may have some episodes of uncontrolled increases in rate of speech while seeming to stutter over sounds, words, or phrases
- Changes are often gradual and fluctuate
- Medications have not been shown to be effective with the speech, voice, and swallowing changes associated with PD
- Speech and voice symptoms are often exacerbated when a person with PD is asked to speak and do something else at the same time (e.g. talking while walking)





## TREATMENTS WITH SPEECH AND VOICE FOCUS

### Speech-Language Pathology Services

LSVT LOUD®

[www.lsvtglobal.com](http://www.lsvtglobal.com)

SpeechVive™

[www.speechvive.com](http://www.speechvive.com)

Voice Amplifiers

Pacing Boards

Augmentative & Alternative  
Communication

## SINGING AND PD

- Increasingly popular with many new groups starting
- Small scale studies reveal promising results but more research is needed
- Should not be used as a substitute for SLP services, but is complementary
- Collaboration of various professionals is key to a successful group





## COGNITIVE DEFICITS

- Cognitive changes are common and are highly variable from person to person
- Frustrating and with emotional consequences
- Common areas affected: attention, some types of memory (especially when learning new information), language, executive functions, and visuospatial functions and a generalized complaint of "bradyphrenia" (slowed thinking processes)
- Depression, anxiety and apathy can play a role, and should be treated
- An often ignored and significant contributor is **hearing loss**
- *Physical exercise is part of a program of cognitive stimulation!!!*



### **Evaluation and treatment:**

- Discuss any changes in cognition with your movement disorder specialist
- Neuropsychological assessment
- SLP Services: Cognitive retraining and compensatory strategy training

## SWALLOWING CHANGES ASSOCIATED WITH PD


- Dysphagia is the medical term for a swallowing disorder
- Changes associated with PD can affect every stage of the swallow
- Changes occur because of decreased force of movement, decreased range of motion, slowness of movement and a decreased ability to adapt to changes in volume and consistency of foods and liquids, as well as changes in reflexes involved in swallowing and airway protection
- Dysphagia has real health consequences for people with PD -- weight loss, reduced quality of life, and aspiration pneumonia
- Dysphagia can also be linked to social isolation









## IMPORTANT SYMPTOMS TO REPORT TO YOUR PHYSICIAN

- Coughing while or shortly after eating
- Gurgly or "wet" vocal quality 
- Excessive watery eyes, nasal drainage, sneezing at meals
- Difficulty chewing
- Needing to swallow many times per bite or sip
- Food remaining in mouth after swallowing/difficulty clearing food from sides of mouth
- Taking longer and longer to finish a meal
- Drooling

- Losing food or liquids from the mouth
- Frequent heartburn 
- Complaints of food getting "stuck" or difficulty with certain consistencies, complaints of globus (lump in throat)
- Changes in respiration with eating (shortness of breath, changes in color)
- Anxiety/agitation while eating
- Unplanned weight loss
- Difficulty swallowing pills 

## SPEECH-LANGUAGE PATHOLOGY SERVICES FOR DYSPHAGIA

### **Evaluation:**

Physician's order for "Dysphagia evaluation and treatment."

1. "Bedside" evaluation of the swallow
2. Modified Barium Swallow Study (MBSS)

### **Treatment:**

- LSVT LOUD®
- Expiratory Muscle Strength Training
- Compensatory strategies
- Changes in posture and positioning
- Modification of diet
- Look at on/off periods







## COMMON SENSE GUIDELINES FOR MEALS AND PILLS

- Position as close to 90 degrees upright as possible
- Position yourself with everything within reach
- Small bites and sips
- Eat slowly
- Alternate bites of food with sips of liquid
- Soft moist foods are easiest to chew
- Eat smaller meals throughout the day
- Minimize conversations and distractions at meals
- Do not lie down for ½ hour after meal
- Take pills one at a time with cold liquids; may also put one pill at a time in a spoonful of pudding, applesauce or smooth yogurt. Follow this spoonful with a couple of "dry" swallows, then a sip of cold liquid
- Do not crush pills without the approval of your physician
- Consult your physician and consider seeing a nutritionist if you are losing weight; keep a food diary



## PRESENTATION



**Stacey A. Zawacki, DrPh, RD**  
*Director, Sargent Choice Nutrition Center*  
*Clinical Assistant Professor*  
Boston University  
College of Health & Rehabilitation Sciences: Sargent College  
Boston, MA



## HEALTHY EATING GOALS

- **Adequacy (Calories)**  
Avoiding unplanned weight loss
- **Balance (Macronutrients)**  
Carbohydrate, protein, fat
- **Variety (Micronutrients)**  
Vitamins and minerals
- **Nutrition Challenges**  
Managing constipation, loss of appetite, medication interactions

## ADEQUACY UNPLANNED WEIGHT LOSS

- Minor adjustments often effective
- Add 100-400 calories daily for gradual weight gain
- Small, frequent meals are easier to tolerate
- Add softer foods that require less cutting and chewing
- **Low protein-high calorie supplements may be helpful if larger additions are needed to manage weight loss**





## BALANCE: CARBOHYDRATE

- Faster stomach emptying time than protein or fat
- Food sources
  - Starch (breads, cereals, rice, pasta, potatoes, beans, peas, lentils)
  - Natural sugars (fruits, vegetables, milk products)
  - Fiber
  - Added sugars



## BALANCE: PROTEIN

- Most people get more than they need and would benefit from choosing more plant sources
- Food sources
  - Dairy and soy products
  - Meats
  - Beans, peas, lentils
  - Nuts and nut butters
  - Grains and vegetables





## BALANCE: FAT

- Longest stomach emptying time compared to carbohydrate and protein
- Heart-healthy sources
  - Olive, canola, peanut oils
  - Nuts, nut butters
  - Avocados, olives
  - Fish



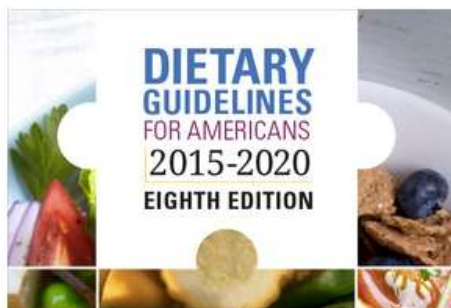
## VARIETY MICRONUTRIENTS

Diet-related nutrients of concern for most Americans

- Vitamins A, C, E, D
- Potassium, Calcium, Magnesium
- Dietary Fiber

For PD

- Folate, vitamin B12, vitamin B6





## VARIETY MICRONUTRIENTS

- **Vitamin A**  
Sweet potato, pumpkin, carrots, winter squashes, leafy greens, cantaloupe
- **Vitamin C**  
Citrus, tomato, potato, strawberries, spinach, cruciferous vegetables, bell peppers, berries
- **Vitamin E**  
Wheat germ, sardines, nuts, seeds, liquid oils
- **Potassium**  
Sweet potato, potato, cooked greens, tomato, banana, melon, beans, peas, lentils
- **Magnesium**  
Cooked greens, nuts, seeds, beans, peas, lentils, quinoa, brown rice
- **Folate**  
Cereal, orange juice, spinach, asparagus, beans, lentils, seeds
- **Vitamin B6**  
Fish, spinach, bell peppers, potatoes, broccoli, asparagus, nuts, seeds, whole grains

## BONE HEALTH

- **Enriched rice milk and almond milk** are lower in protein and healthy alternatives to dairy for calcium and Vitamin D.
- The following are good sources of Vitamin D:
  - Skim, 1% or soy milk
  - Yogurt
  - Fatty fish such as salmon
  - Egg yolks
- Plant foods are rich in other nutrients important for bone health including magnesium and Vitamin K





## DIETARY SUPPLEMENTS

- A multivitamin-mineral, age/sex-appropriate supplement is generally recommended.
- Diagnosed vitamin deficiencies may be treated under MD supervision.
- High dose supplements and disease-specific supplements may interfere with medications and/or worsen other conditions.
- Be cautious. Let your healthcare team know about any supplements you are considering.



## CONSTIPATION

MOST COMMON GI SYMPTOM IN PD

- **25 and 38 grams of dietary fiber per day are recommended for women and men, respectively.**
- The average American adult consumes only 15 grams of fiber per day.
- Adequate fluid intake is essential with increased fiber intake.







## EXAMPLE DAY OF FIBER-RICH FOOD CHOICES

Food Group Serving Size	# of Servings	x Approximate Fiber Content Per Serving (grams)	= Fiber Intake (grams)
<b>Whole Fruit</b> 1 medium, 1 cup cut	2	2	4
<b>Vegetables</b> 1 cup cut, 2 cups raw leafy	3	4	12
<b>Whole Grains</b> 1 slice bread, ½ cup cooked rice/pasta/oatmeal	4	2	8
<b>Beans, Peas and Lentils</b> ½ cup cooked	1	8-10	9
<b>Nuts and Nut Butters</b> ¼ cup nuts, 2 Tablespoons nut butter	1	2	2
<b>Whole Grain Breakfast Cereals</b> See Nutrition Facts Label	1	3	3
Total			38

## ESTIMATE YOUR FIBER INTAKE

Food Group Serving Size	# of Servings	x Approximate Fiber Content Per Serving (grams)	= Fiber Intake (grams)
<b>Whole Fruit</b> 1 medium, 1 cup cut		2	
<b>Vegetables</b> 1 cup cut, 2 cups raw leafy		4	
<b>Whole Grains</b> 1 slice bread, ½ cup cooked rice/pasta/oatmeal		2	
<b>Beans, Peas and Lentils</b> ½ cup cooked		6	
<b>Nuts and Nut Butters</b> ¼ cup nuts, 2 Tablespoons nut butter		2	
<b>Whole Grain Breakfast Cereals</b> See Nutrition Facts Label		3	
Total			





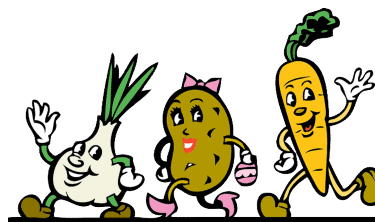
## DELAYED STOMACH EMPTYING

- If Levodopa is taken with food, it will not be absorbed until the food leaves the stomach. Take 30-60 minutes before eating.
- Heartburn/acid reflux and delayed medication effects may be signs of delayed gastric emptying.
- Small, plant-based meals and snacks may improve gastric emptying time.



## LEVODOPA AND PROTEIN

- **Protein competes with levodopa**  
for absorption and transport through blood-brain barrier
- **Moderate motor fluctuations:**  
Reduce protein by substituting plant sources and spread evenly throughout the day
- **Marked motor fluctuations:**  
Restrict protein at breakfast and lunch with catch-up protein at evening meal to meet daily protein requirements

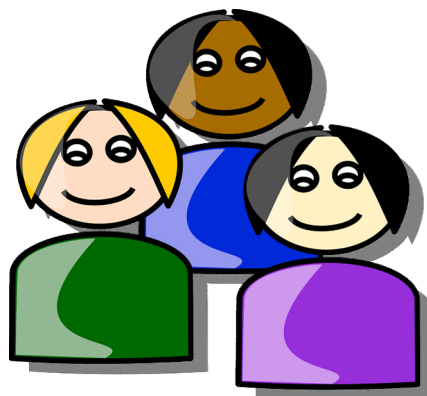




## ESTIMATING PROTEIN REQUIREMENTS

0.36 GRAMS PER POUND OF BODY WEIGHT

<u>Body weight</u>	<u>Protein (grams)</u>
225	81
200	72
175	63
150	54
125	45

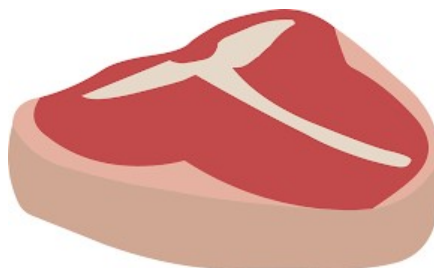


## ESTIMATING PROTEIN CONSUMPTION

MEAT, FISH AND POULTRY

- Meats contain 7 grams of protein per ounce
- A 3-ounce serving (deck of cards) = 21 grams
- 8-ounce servings are not uncommon = 56 grams

Plant sources result in better carbohydrate: protein ratio per meal

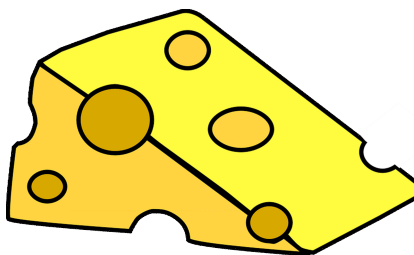




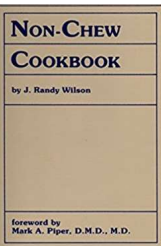
## ESTIMATING PROTEIN CONSUMPTION

### DAIRY PRODUCTS AND EGGS

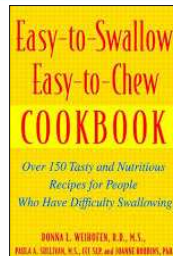
- 8 ounces of milk = 8 grams
- 6 ounces of yogurt ~ 8 grams
- Greek yogurt ~ 2x regular yogurt
- 1 ounce of cheese = 7 grams (easy to eat several ounces)
- 1 large egg = 7 grams



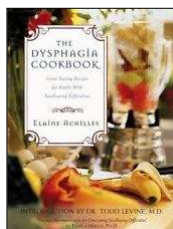
## HELPFUL DYSPHAGIA DIET RESOURCES



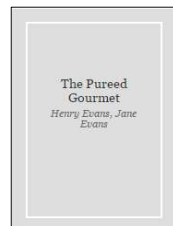
The Non-chew Cookbook  
by J. Randy Wilson



The Easy-to-Swallow, Easy-to-Chew Cookbook by Joanne Robbins



The Dysphagia Cookbook: Great Tasting and Nutritious Recipes for People with Swallowing Difficulties by Elayne Achilles



The Pureed Gourmet by Jane Evans



## A PATH TO WELLNESS

- Pursue educational offerings in detecting and mitigating the symptoms of PD
- Track changes; consider a journal/daily log for jotting down concerns/noticed changes
- Report even mild or subtle changes to your physician and treating therapists
- Choose professionals that you will feel comfortable working with at various times over the course of the disease
- Combat social isolation!



## QUESTION & ANSWER



Lisa Sommers, MA, CCC-SLP



Stacey A. Zawacki, DrPh, RD



## CLOSING REMARKS



**Stephanie Paul**

*Vice President Development and Marketing*  
American Parkinson Disease Association

## FOR ADDITIONAL INFORMATION, ANSWERS TO YOUR QUESTIONS, OR FOR ADDITIONAL RESOURCES

Please visit our website  
[www.apdaparkinson.org](http://www.apdaparkinson.org)

Or call us  
**1-800-223-2732**

