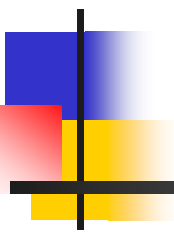


# Coping with the Cognitive Aspects of MS



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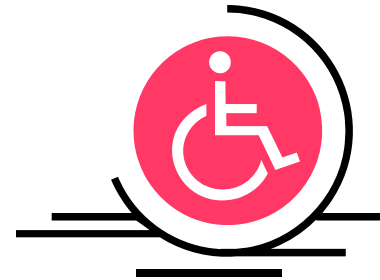
Jennifer Rodgers, Ph.D, R.Psych  
Clinical Psychologist  
University of Alberta Hospital  
October 24, 2009



# Symptoms of MS

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MS is generally thought of as a chronic illness with numerous physical symptoms



Today we know that MS is a complex illness with diverse symptoms including the possibility of cognitive changes.



“Why can’t I remember details the way I use to or stay focused for very long?”



# What is Cognition?

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Mental abilities which allow us to:

- Focus, attend and concentrate
- Learn and remember new things
- Think, reason and solve problems
- Understand and use language



# Cognitive Changes and MS

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Half of the individuals  
diagnosed with MS will **NOT**  
experience cognitive changes.



# Cognitive Impairment vs Cognitive Change

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- Severe impairment – 10%
- Mild to moderate disturbances-
  - 40 to 50 %
  - May require no changes other than using self-help measures



# Are cognitive deficits predictable?

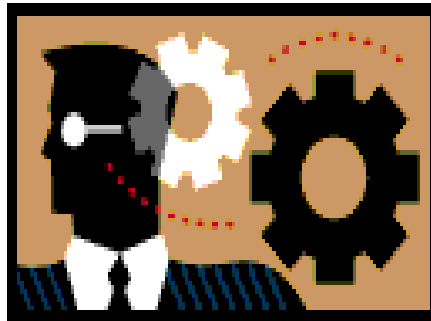
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- Present during early stages or later
- Present in mildly or severely disabled
- No link to any single physical symptom
- Not related to disease variables
  - Duration
  - Severity
  - Disease course



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What kind of cognitive change  
is associated with MS?





# Attention/Concentration Problems

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- Difficulty staying focused if interrupted
- Inability to stay focused for long periods of time
- Inability to attend to a number of things at once



## Remedies:

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- Reduce the number of distractions
- Minimize interruptions
- Spread out long/difficult tasks
- Choose the best time of day to do complicated tasks



# Information Processing Problems

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- How people gain and make sense of new information
- Troubled by too much stimulus
- Inability to function as quickly as usual



# Remedies:

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- Start new projects when well rested
- Cut out distractions
- Break tasks down into small chunks
- Allow extra time to take in new info
- Find ways to control anxiety that slows down thought processes



# Memory Impairments

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- Recall of recent events and information (episodic memory)
- Remembering to do things (prospective memory)
- *Recognition* is rarely affected
- *General knowledge* and *memory of the past* is rarely affected



# Remedies: Memory Aids

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- Diary/notebook
- Record phone calls; central calendar
- Make lists for shopping; post-it notes
- Dictaphones
- Timers, alarms



# Remedies: Keep Organized

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- Have a designated place for important things
- Choose remedies that make sense to you and that you will use
- Follow a routine
- Practice what works until you do it without thinking



# Word Finding Difficulties (Verbal Fluency)

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- “tip of the tongue” phenomenon
- Recall problem - processing error, not memory deficit
- Less frequently - word mix up, esp. words that sound the same



# Remedies:

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- Ignore it, dwelling on it causes anxiety
- Use substitute word



# Visuospatial Abilities

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- How people relate visual information to the space around them
- Difficulties probably relate to a slowing of information processing skills
- Driving, concept of left/right, map reading



# Remedies:

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- Reduce distractions
- Break tasks into small chunks
- If a major concern, proper assessment for driver's license should include a cognitive assessment



# Executive Functioning Skills

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- Problem Solving
- Decision Making
- Judgment
- Insight



# Behaviors Associated With Frontal Involvement

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- Impulsivity
- Poor self-regulating behaviors
- Difficulty initiating action
- Impaired awareness of deficits



# Emotional and Behavioral Symptoms

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- They are different from “cognitive symptoms”
- However, the two can affect each other
- May be caused by factors directly related to MS or not



# Impact of Cognitive Impairment on Daily Activities

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- Socializing
- Working
- Driving

# How do friends and family describe the individual?

- Emotionally over reactive
- More irritable
- More tense than normal
- Less out-going, empathetic, appreciative of others





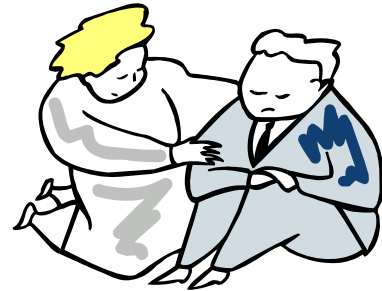
# Empathy

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- The ability to care for others; “walk in another’s shoes”
- Empathy loss may occur directly as a result of damage to frontal and temporal structures
- Empathic response is a very important element of higher social functioning

# Cognitive components of empathy:

- Working memory
- Complex attention
- Perspective taking
- Abstract reasoning
- Spontaneous cognitive flexibility
- Reactive cognitive flexibility



# Effect of Cognitive Impairment on Employment



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Cognitively Intact – 44%

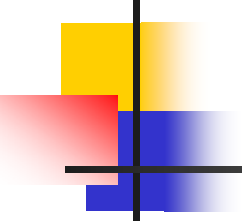
Cognitively Impaired – 16%

- less likely to be involved socially
- more assistance with personal care
- help with housekeeping activities

# Cognitive Impairment and Driving Ability

- Divided/selective attention
- Analysis of complex situations
- Insight
- Judgment
- Problem-solving
- Quick mental reactions





# What can cause temporary cognitive changes?

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- Fatigue
- Emotional changes – especially depression/anxiety
- MS relapses
- Physical effort
- Medications
- Lifestyle changes



# How apparent are cognitive deficits?

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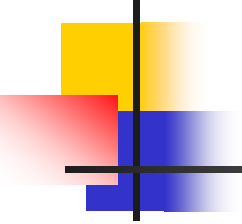
- Difficult to separate out symptoms of depression/fatigue and cognitive impairment
- Self report is unreliable
- Identification of cognitive problems in MS require objective psychometric testing



# Can the effects of cognitive difficulties be minimized?

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- Practice to improve the weakened skills
- Make better use of one's strengths
- Learn alternative, compensatory strategies
- Manage level of fatigue

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- 
- Review medications that might indirectly contribute to the impact of fatigue/sleep
  - Manage depression/anxiety
  - Educate family and friends



# How does one cope with cognitive loss?

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- Talk to you doctor
- Explain your difficulties to others to avoid misunderstandings
- Recognize your limits and ask for help to avoid frustration and failure
- Pace yourself



## Coping Cont.

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- Use aids that others have found useful
- Develop your own self-help techniques
- Relax and have a sense of humor



# Resources

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- MS Psychologist
- Psychologists in private practice
- Psychiatrists
- MS Special Therapies Nurses
- MS Society
- Websites



[www.mssociety.ca](http://www.mssociety.ca)

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Under Multiple Sclerosis – publications  
Under Support & Services – *Ask the  
Expert*

[www.msif.org](http://www.msif.org)



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- Introducing MS-related emotional and cognitive issues, by Dr. Nicholas Larocca.
- Day-to-day living with cognitive problems, by Dawn Langdon.
- Understanding cognitive changes, by Paivi Hamalainen.

MS in focus, Issue 4, 2004

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[www.nationalmssociety.org](http://www.nationalmssociety.org)  
(US publ. Inside MS/Momentum)

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Memory and problem solving by Martha Jablow, Inside MS, Spring 2000.

Loosening the knots of cognitive problems by Ross Myles, Inside MS, April-May, 2007



[www.mstrust.org.uk/publications](http://www.mstrust.org.uk/publications)

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- Practical management of cognitive impairments associated with MS by Patrick Carroll, Way Ahead, 2004; 8 (2):4-5



# Google - MS Essentials

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Multiple Sclerosis Society. MS Essentials,  
London, UK

- Fifth edition, July 2006, 02, Memory and thinking.  
(Look under free publications and then symptoms and treatments under publ. topic)



# Google: Rims – European Network of MS Centres

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- Under publications: 2006
  - Emotional reactions and MS
  - Personality, Behaviour and Multiple Sclerosis