

Is bacteria a piece of optometry - or just a piece of s--- ?



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Intestine bacteria's

- More bacteria's than other cells in our organism
- 100 trillion (100.000.000.000.000)
- Helps to digest and enhance uptake of food
- Physical barrier against parasites
- Helps detoxification processes (our second liver)
- Have essential influence on our immune system.
- Produce vitamins, important enzymes and neurotransmitters.
- Controls inflammatory processes

The bad and the good guys (90%)

<p>Firmicutes</p> <ul style="list-style-type: none"> • LPS (lipopolysaccarid) • Inflammation • Enhance calorie uptake from carbohydrates / turn it to fat 	<p>Bacteroidetes</p> <ul style="list-style-type: none"> • BDNF (Brain-derived Neurotropic factor). • Promote growth of brain tissue. • GABA (gammaaminobutanic acid) • Neurotransmitter - moderate neuro activity and dampen stress responses. • Glutamate. Important for cognition, learning and memory
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Risk factors

- Cesarean Section
- No or little period of breast feeding
- Stress
- Antibiotic
- Diet

Enemies of the microbiota

- Sugars, Gluten, Chlorine and Antibiotics
- Lack of nutrients
- Stress

- If you could do three simple changes in your life to prevent or even change memory loss or other brain diseases - would you do it?

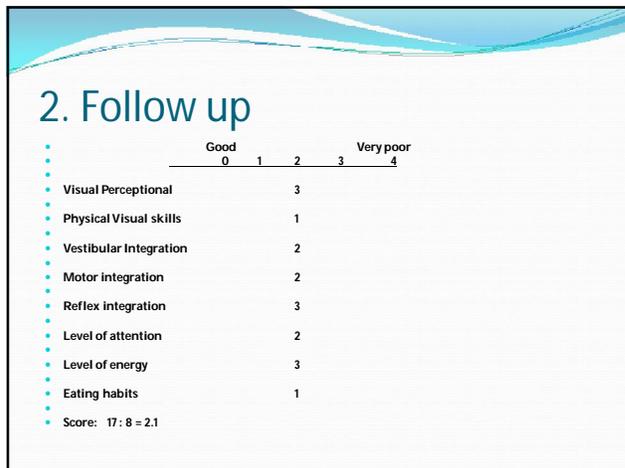
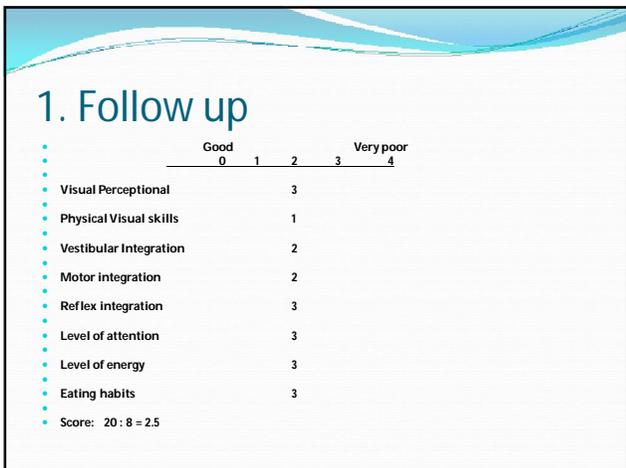
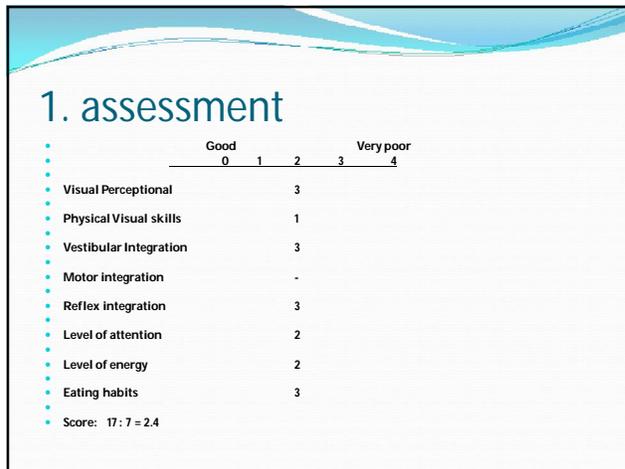
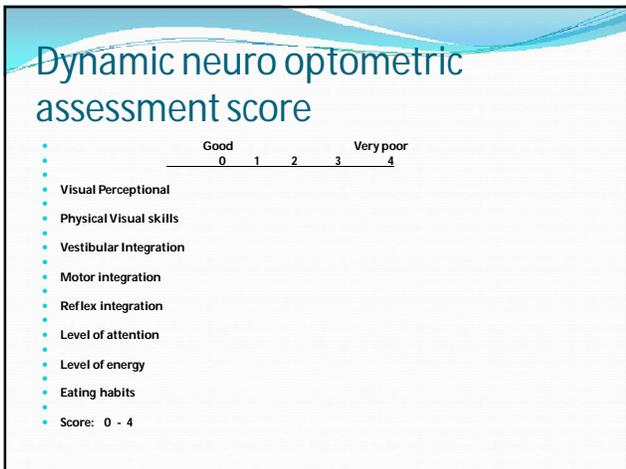
• Dr. David Permuter, MD (neurologist) - from his book "Brainmaker".

The three ways to a better microbiota

- Avoid sugar, sweets, bread and simple carbohydrates.
- Eat food rich in dietary fiber.
- Take probiotics

- Green vegetables
- Cabbage
- Kale
- Onion
- Garlic
- Fruit
- Root vegetables
- Grain products
- Refined carbohydrates





3. Follow up

	Good		Very poor	
	0	1	3	4
• Visual Perceptual			3	
• Physical Visual skills		1		
• Vestibular Integration		1		
• Motor integration			2	
• Reflex integration			2	
• Level of attention		1		
• Level of energy			2	
• Eating habits		1		
• Score: 13 : 8 = 1,6				