RESOLVING PICKY EATING FROM THE INSIDE OUT

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INTRODUCTION

Prior to the 20th Century children would eat the food that was provided by their families. With the onset of industrialization, food options marketed directly to children became prevalent and snacking the norm. When we examine the patterns of picky eaters, we need to consider how both the culture of eating (1) and the physical make up of our food has changed over the last century. When infants are first exposed to solid foods that contain additives (preservatives, pesticides, herbicides, sweeteners, ...), they will experience physiological sensations/symptoms in association with these items (2). If these sensations are unpleasant, they will try to avoid the food. If pleasant, and they have the option, they will be motivated to restrict choice to the food that 'feels' the best. In times of scarcity, children eat because they are hungry and they eat whatever is available. With abundance and choice, they are more apt to choose highly pleasurable foods more frequently (our culture of snacking....).

RATIONALE

It is now known that chemical food additives impact hormonal, sensory, and motor aspects of eating (the 'why' behind textural, etc. sensitivities) (2). By addressing the physiological and cultural factors that impact food choice (3), the OT can expand therapeutic options to enhance a child's capacity to eat a greater variety of whole, healthy foods.



PICKY EATING DEFINED

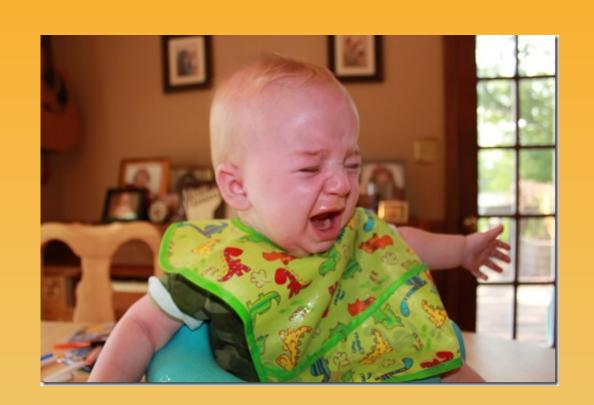
According to Taylor, et al 2015, "Picky eating (also known as fussy, faddy or choosy eating) is usually classified as part of a spectrum of feeding difficulties. It is characterised by an unwillingness to eat familiar foods or to try new foods, as well as strong food preferences. The consequences may include poor dietary variety during early childhood. This, in turn, can lead to concern about the nutrient composition of the diet and thus possible adverse health/[behaviour]-related outcomes."

FACTORS THAT INFLUENCE FOOD CHOICE

PHYSIOLOGICAL

TASTE

Vegetables and fruit that have been contaminated with pesticides and herbicides can cause a bitter or burning sensation in the mouth of sensitive individuals (6)



Nutrient deficiencies can alter both the

low in foods that contain Zinc which is

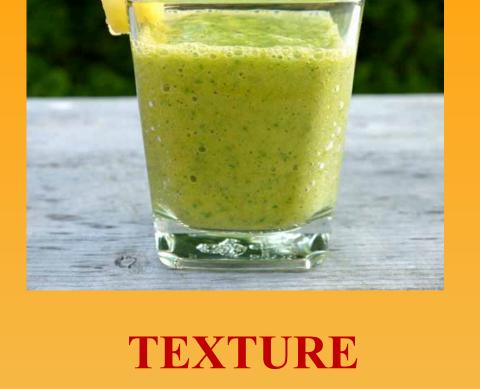
necessary to stimulate the sense of smell

Standard American Diet (SAD) is typically

taste of and appetite for food. The

(necessary for taste) (14)

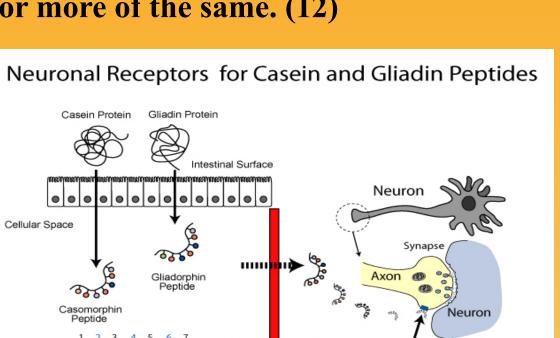
Oral sensitivity and motor delays, both common with children who have picky eating habits, can influence a child's capacity to process some food textures in their mouth (7)



asomorphin: tyr-pro-phe-pro-gly--pro-ile Gliadorphin: tyr-pro-gln--pro-gyn-pro-phe

"ADDICTIONS"

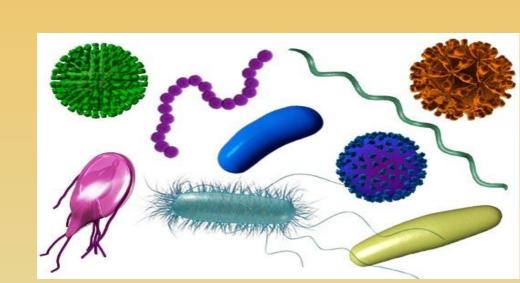
When wheat, dairy and soy are not digested properly (enter the bloodstream as peptides not amino acids), they bind with opiate receptors in the brain creating reactions of brain fog, irritability, anxiety, and craving for more of the same. (12)

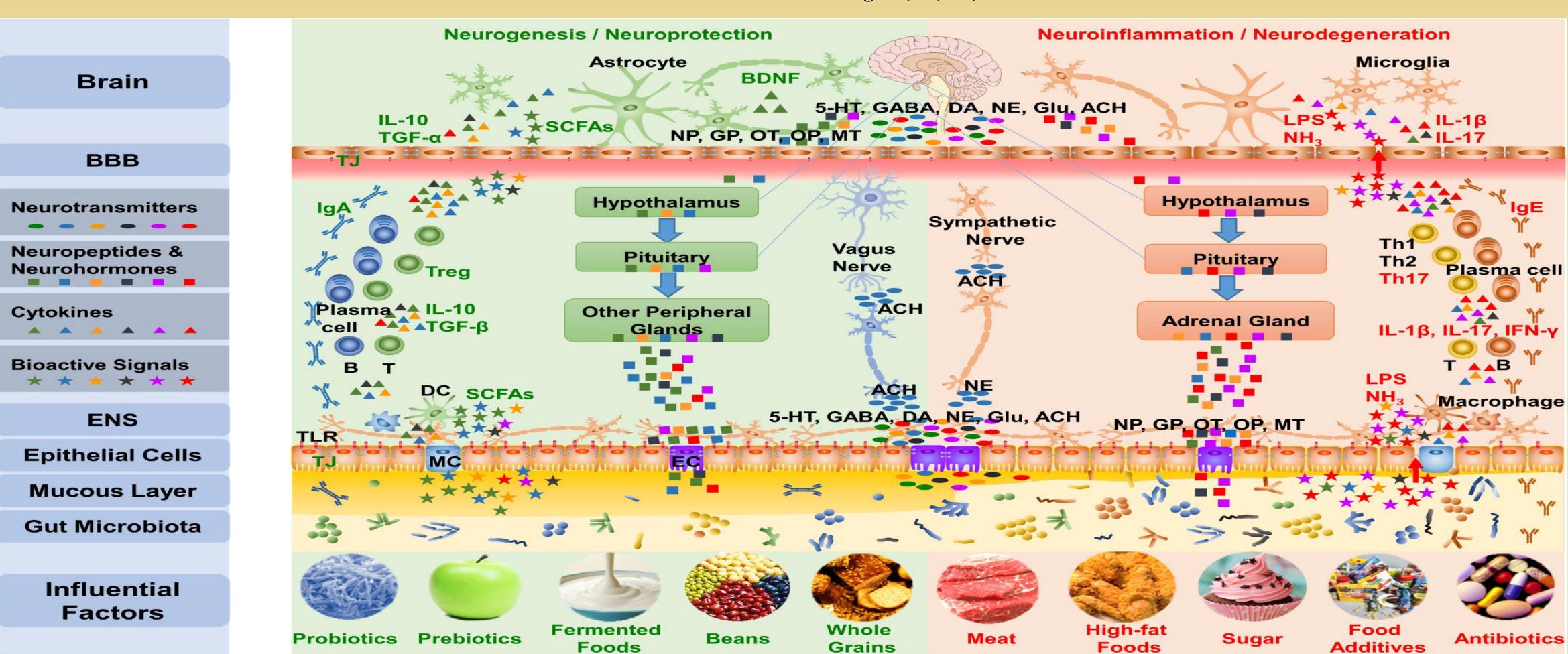


Foods like white potatoes, refined flour/starches, and refined table sugar can trigger a reaction in the nucleus accumbens that causes an addictive response from the brain in the same way that heroine or cocaine do. (A2)

MICROBIOME AKA the 'BUDDIES IN OUR BELLY'

Our microbiome (yeasts, viruses, and bacteria) releases neurotransmitters and hormones that can change the behaviour of the "host". If the microbiome is dysbiotic, food seeking behaviour will self-limit to foods that are high in refined carbohydrates and sugar. (A3, A4)





SNACKING, FREQUENTLY CULTURAL **ACKNOWLEDGEMENTS** AND AS AN ALTERNATIVE 1) Dr. Mark Hyman, MD, Medical **Director of The UltraWellness** INDUSTRIAL PROCESSING OF FOOD Center, Board President of clinical TOAMEALS affairs with the Institute of FOOD AS A REWARD AND SWEETS FOR Functional Medicine 2) Dr. Vera Tarman, MD, MSc, NEW FOODS (< 30 TRIES) **EVERY OCCASION** FCFP, ABAM, Medical Director of 80 YEARS FOLLOWING A FOOD GUIDE THAT WAS Renascent Addictions Treatment Centre in Toronto. CREATED FROM EMERGENCY WAR EFFORTS TO 3) Sarah Morgan, MA **Functional Nutrition**, INCREASE THE WEIGHT OF CANADIAN MALES Microbiologist, Author "Buddies in My Belly" 4) Dr. Derrick MacFabe, MD, FACN, Director Kilee Patchell-**Evans Autism Research Center CUNNING AND PERVASIVE MARKETING TACTICS**

THAT WORK 1) AVOID JUNK FOOD

ACTION STEPS

Eliminate artificial colours, flavours, and preservatives

2) TAME THE TOXINS

Pesticide/herbicide free food may be better accepted by sensitive children

3) REMOVE REACTANTS

Some children will not progress until addictive or reactive items are removed

4) ENCOURAGE WHOLE FOOD with the right TEXTURE

Whole foods are naturally free from addictive properties and processed products. They contain necessary nutrients (like Zinc, required for taste and smell) to support the functions within the body

5) LIMIT BETWEEN MEAL SNACKS

A hungry child is more willing to try a new food. Water, between meals, is the fluid of choice

6) CARE FOR THE "BUDDIES IN OUR BELLIES"

Whole and naturally cultured foods help balance our microbiome. Many children are motivated to try a new food if it will benefit the 'buddies in their belly'

7) PARTICIPATION IS KEY

Encourage kids to be involved. Play with food, help in the kitchen, grow a garden,..... Even the fussiest eater will try a fresh berry they have picked themselves

8) CELEBRATE HEALTHY MEALS THE WHOLE FAMILY CAN **ENJOY** (the end of the short order cook)

The 2019 Canada Food Guide is an excellent resource (13, 14, 15)



REFERENCES

- 1) Steinsbekk, Silje; Bonneville-Roussy, Arielle, et al. "Child and parent predictors of picky eating from preschool to school age" International Journal of Behavioral Nutrition and Physical Activity (2017) 14:87 DOI 10.1186/s12966-017-0542-7
- 2) Trasande, Leonardo, MD, MPP, FAAP; Shaffer, Rachel, MPH; Sathyanarayana, MD MPH; and the Council for Environmental Health. "Food Additives and Child Health" Pediatrics. 2018; 142(20:e20181408).
- 3) Leung, Alexander; Marchand, Valerie; Sauve, Reginald; Canadian Pediatric Society. "The 'picky eater': The toddler or preschooler who does not eat" Pediatric Child Health. 2012 Oct; 17(8): 455-457
- 4) Taylor CM, Wemimont SM, Northstone K, Emmett PM. Picky/fussy eating in children: Review of definitions, assessment, prevalence and dietary intakes. Appetite 2015 Dec;95:349-59. doi: 10.1016/j.appet.2015.07.026. Epub 2015 Jul 29.
- 5) Ben-Sason, Carter, Briggs-Gowan. Sensory over responsivity in elementary school: prevalence and social-emotional correlates. Journal of Abnormal child Psychology (2009) 37:705-716. DOI 10.1007/s10802-008-9295-8
- 6) Roberts JM MD, MPH, Karr CJ MD, PhD, and COUNCIL ON ENVIRONMENTAL HEALTH. Pesticide Exposure in Children. Pediatrics. 2012 Dec; 130(6): e1765-e1788. Published
- online 2012 Nov 26. doi: 10.1542/peds.2012-2758 7) https://www.sciencedirect.com/science/article/pii/S0002822309018082
- 8) https://academic.oup.com/ajcn/article/98/3/641/4577039
- 9) https://academic.oup.com/jn/article/131/2/305/4687001
- 10) Javierre BM, Hernando H, BallesarE. Envronmental triggers and epigenetic deregulation in autoimmune disease. Discover Med. 2011 Dec; 12(67): 535-45. PMID: 22204770
- 11) Environmental Defense Canada, June 2013. Pre-polluted: A report on the toxic substances in the umbilical cord blood of Canadian newborns. Obtained from:
- http://environmentaldefence.ca/report/report-pre-polluted-a-
- 12) Campbell-McBride, Natasha, MC, MMedSci (neurology), MMedSci
- (nutrition). Gut and psychology syndrome: natural treatment for dyspraxia, autism, ADHD, dyslexia, depression, schizophrenia. Medinform Publishing, 2010.
- 13) Herbert, Martha, MD, PhD, and Weintraub, Karen. The autism revolution: whole-body strategies for making life all it can be. Harvard University and Ballantine Books, 2013. 14) Matthews, Julie, BS, NC. Nourishing hope for autism, adhd, learning and
- developmental delays. Healthful Living Media, 2008 15) https://www.ncbi.nlm.nih.gov/pmc/articles/PMC5816267/