

INFORMATION SHEET*

RRCASD: Informing Families and the Community of Autism Spectrum Resources & Services

*Gluten-Free & Casein-Free Diet**

By RRCASD with contributions by Susan L. Hyman, MD

Overview

The gluten-free, casein-free (GFCF) diet is one of the most widely utilized complementary or alternative treatments for children with an autism spectrum disorder (ASD; Levy and Hyman, 2005), with up to one-third of families surveyed reporting that they have tried it. It involves the removal of casein, a protein found in dairy products, and gluten, a protein found in barley, rye and wheat, from the child's diet. Gluten is responsible for the elasticity in most baked goods. There is a disorder known as celiac disease or gluten enteropathy in which people with this disorder have an immune response to gluten. This particular gastrointestinal disorder has not been found to be more common in people with autism.

The hypothesis used to support the use of the GFCF diet for treatment of autism symptoms is that morphine-like chemicals related to gluten and casein cross a damaged intestinal lining and act like false neurotransmitters in the brain. While some researchers have identified morphine like compounds in the urine of people with autism and other neuropsychiatric disorders, more specific testing does not indicate these compounds as being related to opiates, gluten or casein. Many parents are interested in a trial of the GFCF diet for a number of reasons. One, some parents have reviewed the many testimonials related to symptomatic improvement in areas such as sleep, irritability, stool consistency, attention and language that can be found in the popular press and want to try the diet to see if similar symptoms can be improved in their child. Second, some parents consider the diet because they believe it can supplement educational and behavioral treatments, many of which have a stronger basis in the scientific literature but may seem to bring about slower rates of progress. In addition, many parents share a general belief that dietary and nutritional interventions are not harmful. Neither the Clinical Report on treatment published by the American Academy of Pediatrics (2007) or the academic review of the scientific evidence published as a Cochrane report (2008) suggest that the evidence to date supports the GFCF diet as an intervention.

Whenever a treatment is considered, it is important to evaluate the perceived benefit of the intervention against its possible risk and cost. The GFCF diet poses some potential nutritional risks. Without professional nutritional oversight, review, and monitoring, a child on this diet may be at risk for inadequate calcium, vitamin D, and protein intake (Levy & Hyman, 2003). Gluten and casein free foods may not be adequately supplemented to provide the many vitamins and minerals needed to maintain proper health. However, with the proper professional help it may be possible to provide adequate nutrition to a child on the diet. Therefore, parents considering a trial of the GFCF diet should consult with their child's health care professional about appropriate dietary and nutritional supports and services. There is also a financial cost. Many gluten-and-casein-free products are considerably more expensive than traditionally produced products so the economic impact can be significant for a family (Lee et al., 2007). For some families, careful consideration needs to be given if limited resources would decrease access to evidence based treatments.

Rochester Regional Center for Autism Spectrum Disorders

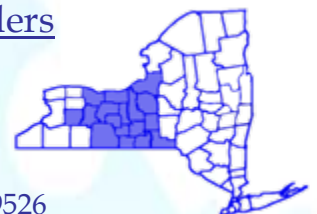
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Dialing from inside of the '585' area code? Call: 273-1613

Dialing from outside of the '585' area code? Call toll-free: 1-888-806-9526



Find Out More

To find out more about the GFCF diet, check out these resources:

American Association of Pediatrics paper on varying treatments for children with autism

<http://www.aap.org/pressroom/issuekitfiles/ManagementofChildrenwithASD.pdf>

American Dietary Association' position paper on the GF/CF diet

http://www.eatright.org/ada/files/Gluten_Free_Casein_Free_Diet_for_Children.pdf

Celiac Disease Foundation

www.celiac.org

Cochrane Database of Systematic Reviews

<http://mrw.interscience.wiley.com/cochrane/clsysrev/articles/CD003498/frame.html>

Interactive Autism Network – a detailed explanation of the GF/CF diet

http://www.iancommunity.org/cs/ian_research_reports/treatment_series_special_diets

Contact the RRCASD at 585-273-1613 (in the 585 area code) or 1-888-806-9526 (out of the '585' area code) and ask to speak to our Information & Referral Specialist if you would like additional information on potential resources in our area.

References

- American Academy of Pediatrics, Council on Children with Disabilities (2007). Management of children with autism spectrum disorders. *Pediatrics*, 120, 1162-1182.
- Lee, A. R., Ng, D. L., Zivin, J., & Green, P. H. R. (2007). Economic burden of a gluten-free diet. *Journal of Human Nutrition and Dietetics*, 20, 423-430.
- Levy, S. E., & Hyman, S. L. (2003). Use of complementary and alternative treatment for children with autistic spectrum disorders is increasing. *Pediatric Annals*, 32, 685-691.
- Levy, S. E., & Hyman, S. L. (2005). Novel treatments for Autistic Spectrum Disorders. *Mental Retardation and Developmental Disabilities Research Reviews*, 11, 131-142.

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