

Specific Carbohydrate Dietary Trial: Understanding the Effectiveness of a Specific
Carbohydrate Dietary Intervention In Autistic Children

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ABSTRACT

Background: There is strong evidence supporting theories which purport that genetic connections may increase risks for autism, but the etiopathology of autism has remained undefined. In recent years, studies have focused on a diet-autism axis in an attempt to better understand nutritional contexts of autistic behavior and learning. Studies have shown that some autistic expressions may be ameliorated with a gluten free/casein free diet. A Specific Carbohydrate Dietary intervention has become increasingly popular among parents of autistic children, while medical physicians have become increasingly concerned for these children's nutritional health. Specific Carbohydrate Dietary interventions have not been scientifically evaluated.

Objective: Based on claims that the Specific Carbohydrate Diet ameliorates autistic behaviors and heals chronic gut issues, the purpose of this project is to understand the Specific Carbohydrate Diet's effectiveness in ameliorating autistic expressions, i.e., both behavioral and physiological.

Design: Physiological and behavioral signs were observed in 2 children with autism. Based on the abnormal physiological and behavioral profiles, targeted dietary intervention trials using a Gluten Free/Casein Free Diet followed with a Specific Carbohydrate Diet were initiated in both autistic children.

Results: These autistic children showed significantly less behavioral and physiological problems during the Specific Carbohydrate Diet than during the Gluten Free/Casein Free intervention. These results are consistent with the claims related to a Specific Carbohydrate Dietary intervention.

Conclusions: Based on the results of observed behavioral and physiological changes during the adherence of a Specific Carbohydrate Dietary intervention, we hypothesize that the Specific Carbohydrate Diet does ameliorate autistic expressions in some autistic populations.

Key Words: autistic disorder, autism, nutritional intervention, SCD, Specific Carbohydrate Diet, GF/CF, Gluten Free/Casein Free

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Statement of Author Contributions:

1. Jeffrey Allen Trelka: Study design, study coordinator, data collection, interpretation of data, manuscript writing
2. Brian S. Hooker, Ph.D., P.E.: critical review, interpretation of data, manuscript writing

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Comparison of changes observed between each intervention.

	Gluten Free / Casein Free Student A	Gluten Free / Casein Free Student B	Specific Carbohydrate Diet Student A	Specific Carbohydrate Diet Student B
Improved Behavioral Changes	<ul style="list-style-type: none"> • Less Stimming • Began to speak for the first time since regression • More vocabulary (echo) • Improved eye contact 	<ul style="list-style-type: none"> • Loss of Self-mutilating behavior • Loss of <i>Constant</i> stimulating behaviors 	<ul style="list-style-type: none"> • No dietary self-limiting • No fetal positioning • No night waking • Loss of autistic gaze • Less tantrums • More words & clearer speech • More aware of environment • Greater imitation skills • Greater self-control / less hyperactive • Loss of head-banging • Less screaming & crying • More social • More helpful • Greater imagination 	<ul style="list-style-type: none"> • No dietary self-limiting • No fetal positioning • No eye covering • Significantly less night waking • Loss of autistic gaze • Less tantrums • More aware of environment • Not biting others • Less screaming & crying • More initiating • More verbalizing • Smiles & laughs appropriately
Improved Physiological Changes	<ul style="list-style-type: none"> • Diarrhea decreased from approx. 7 per day to only 1 per day 	<ul style="list-style-type: none"> • Diarrhea decreased from approx. 7 per day to only 1 per day 	<ul style="list-style-type: none"> • No food induced eczema • Solid Stool • Less abdominal distention • No Panda eyes • Loss of foul body odor 	<ul style="list-style-type: none"> • No food induced eczema • Solid Stool • Less abdominal distention • No Panda eyes • Loss of foul body odor

<p>Deteriorating Behavioral changes</p>	<ul style="list-style-type: none"> • Self-limiting diet 	<ul style="list-style-type: none"> • Self-limiting diet 		
<p>Deteriorating Physiological Changes</p>				

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