The Problem: ADD

The problem of restless, hyperactive children, but also of children suffering from lack of concentration and drive, is constantly growing. In the opinion of many experts, about 10-15% of children and adolescents in Germany are suffering from AD, about 4-8% of those additionally suffer from a hyperactivity syndrome. In the U.S. the situation is even more dramatic with 20-25% affected. The tendency is rapidly rising. Parents, families and teachers are overwhelmed and many doctors see controversial drugs (such as Ritalin) as the only solution. The search for the causes of ADD and the research of alternative treatments to Ritalin is of the highest urgency. Vital substances such as vitamins, minerals, amino acids and Omega-3 fatty acids are repeatedly being discussed as natural alternatives and success confirms these.

Based on the experiences and success of Mrs. Monika Fath, who works with ADD children as a medical practitioner and who has used FitLine® supplements with great success and based on many other positive accounts from pediatricians, medical practitioners, ergotherapists and affected parents, the idea of an ADD study with FitLine® products was born in the Scientific Advisory Board under the leadership of Dr. Gerhard Schmitt. Dr. Tobias Kühne and the ergotherapist Michael Metzmacher were commissioned with the study implementation. Thirty children in three groups were tested and observed over a 6 month period. One group received Brain-Gym (a special kinesiological training), another received FitLine® products alone and the third received FitLine® products and Brain-Gym in combination.
What forms of ADD exist?

<table>
<thead>
<tr>
<th>ADD/H +</th>
<th>ADD/H –</th>
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<tbody>
<tr>
<td>with hyperactivity</td>
<td>without hyperactivity</td>
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What possible holistic/integrated methods of therapy exist for ADD?

A holistic concept for learning disabilities, attention deficit & lack of concentration

Osteopathy = physical development  
Homeopathy = emotional development  
Brain-Gym = improved movement and laterality  
Ergotherapy = reflex development  
Nutrition = supplementation with missing nutrients to improve concentration, coordination and performance

Objective:

What effect does nutrient optimization with FitLine® products have on ADD children?

On:

- Physical coordination
- Concentration
- Attentiveness
- Hyperactivity
- Scholastic performance
- Social behavior in school and at home
- Eating behavior
- Drug intake
The brain consists of the left and right hemisphere, as well as the so-called Corpus collosum, a bundle of nervous systems, through which the so-called neurotransmitters travel from one hemisphere to the other.

This Corpus collosum is developed when infants learn how to crawl. Children, who never crawled therefore have the most coordination problems and eventually have to visit an ergotherapist.

Both hemispheres have to work together to permanently retain anything learned. Pure numbers can only be learned for example, if they are connected to an emotional or pictographic impression.

The neurotransmitters or messenger substances are needed for both hemispheres to work together. These are formed by:

Vitamin B, minerals, amino acids, Omega-3 fatty acids.

In hyperactive children, these messenger substances jump back and forth too rapidly and cannot properly perform their function. Too much phosphorous (in processed foods, soft drinks, sweetened beverages, in milk products) causes a malfunction of the neurotransmitters.

In hypoactive children, too few messenger substances are present.

Neurotransmitters are only formed during deep sleep also called slow-wave sleep! So, when children sleep restlessly (rumpled bed, wakes up at the other end of the bed in the morning, sleep walks), they never enter slow-wave sleep and so they cannot produce neurotransmitters. In order to reach slow-wave sleep, sufficient Magnesium is required.

Magnesium intake should always take place in a 1:2 ratio with Calcium (1 part Magnesium, 2 parts Calcium), so that the body can absorb these substances properly. If Calcium is not added, a Calcium deficiency is the result sooner or later. If the ratio is not met, the body cannot properly utilize the minerals.
Building Blocks for the Brain Metabolism:

B-Vitamins:
- Increase the ability to concentration
- Increase oxygen supply to the brain
- Ensure strong nerves and good coordination
- Work against stress and improve mental function
- Work against depression
- Helpful with neuritis, headaches and migraines
- Improve emotional balance
- Against behavioral and developmental dysfunction
- Important for carbohydrate metabolism
- Improve the communication between brain, nerves and muscles
- Are responsible for such emotions as happiness, joy or love

Vitamin B robbers:
Sugar, White Flour, Antibiotics, Medical drugs in general, Stress, Infections, Artificial light!

Minerals:
- Magnesium: against lack of concentration and weakness of memory, pronounced nervousness, irritability and sleep disruptions
- Calcium: build-up of bone mass and teeth, enemy of Magnesium (if not taken in the right proportion)

Amino Acids:
- Stabilize the immune system
- Improve the metabolism
- Supply the brain with energy
- Build enzymes

Omega-3 Fatty Acids:
- Control brain and nerve cell function. Build intelligence, concentration and alertness
Sweets and foods with a high glycemic index cause a steep increase in the blood sugar level, which then falls below normal levels after a short time. Because this is a life-threatening event for the body, adrenaline is released by the adrenal gland, which normalizes the blood sugar level.

However, too much adrenaline in the body has the following effect:

- Weakened nerve impulses combines with hyperactivity and aggressiveness
- Disruptions of the working memory. Experiences and impressions cannot be combined and retention is blocked.
- Lack of planning ability
- The following develop:
  - Muscular weakness/Tiredness
  - Inability to concentrate
  - Cravings for sweets
  - Inattentiveness/Nervousness
  - Restlessness/Moodiness

In children, the adrenaline level rises 10 times as much as compared to adults after eating a piece of cake.

Sweets should only be consumed after a principal meal, because then, the blood sugar level only increases slightly. Never consume sweets between meals or as snacks by themselves.

Dehydration can also lead to learning disabilities.
Study Setup

Time period: January – July 2004
Direction: Dr. Tobias Kühne – Nutritional Physician
Michael Metzmacher – Ergotherapist

Study Design

- Time period: 6 months
- Participants: 30 children between the ages of 9 -15
- All 30 children were diagnosed or had been referred for ergotherapy, with ADD symptoms such as lack of concentration, inattentiveness, learning disability and lack of performance, in some cases along with hyperactivity
- 5 children were taking Ritalin, in the case of 17 others, this treatment option had been discussed
- All children were described by teachers as lacking concentration, being dreamy or hyperactive
- The scholastic performance in German, foreign languages, math and other subjects was alarming in some cases, some were in danger of not passing the grade
- All parents had trouble in the areas of daily activities and scholastic performance (concentration, attentiveness, lacking motivation), self-esteem, being goal oriented

Arrangement of 10 children in each group

- 1st group FitLine® products + Brain-Gym
- 2nd group FitLine® products
- 3rd group Brain-Gym
Test Fundamentals

All children were tested for

- Physical Coordination
- Aural perception acc. to Fred Warncke
- Spelling Ability

- Free Radical Protection
  - Stimulation through Hydrogen peroxide
  - Muscle Test
- ADD Parent Questionnaire
- Health And Fitness Survey

To conclude the case study, all tests were repeated and a survey regarding the changes in general behavior was conducted.
What is Brain-Gym?

An exercise program, which consists of 26 exercises to be performed within 5-7 minutes, with the goal of improving the cooperation between the right and the left hemisphere.

FitLine® Products in Groups 2 and 3

Dosage for children under 10 years of age
- 2 Tsp. Super Kid in the morning
- 1 Tsp. Super Kid at noon
- 1 ½ Tsp. Restorate® at night
- One half Protein Ultra bar throughout the day

Dosage for children over 10 years of age
- 1 Tsp. Activize® in the morning
- ½ Tsp. Activize® at noon
- 2 Tsp. Restorate® at night
- One half Protein Ultra bar throughout the day
Results after 6 months

Clear improvement of physical coordination

FitLine® Products improve Aural Perception

Improved concentration in recognizing sounds

Better at dictation with FitLine® Products
Better grades with FitLine®

% Improvement resulted in:

BG from C- to C+
FitLine® from C to B
BG/FitLine® from C to A-

(Approximate grades due to differences between the German and U.S. grading systems)

FitLine® Products deliver optimal anti-oxidant protection

Before the study, no child had protection from free radicals

The children’s behavior improves

3rd Place
The Brain-Gym/FitLine® Group Point Gain 40

2nd Place
The Brain-Gym Group Point Gain 48

3rd Place
The FitLine® Group Point Gain 49
The social behavior improves noticeably!

<table>
<thead>
<tr>
<th>Behavior</th>
<th>Improvement in %</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sleeping Behavior</td>
<td>30%</td>
</tr>
<tr>
<td>Social Behavior</td>
<td>40%</td>
</tr>
<tr>
<td>Communication Behavior</td>
<td>60%</td>
</tr>
<tr>
<td>Attentiveness</td>
<td>70%</td>
</tr>
<tr>
<td>Scholastic Performance</td>
<td>50%</td>
</tr>
<tr>
<td>Motivation</td>
<td>50%</td>
</tr>
<tr>
<td>Self-esteem</td>
<td>60%</td>
</tr>
<tr>
<td>Eating Behavior</td>
<td>60%</td>
</tr>
<tr>
<td>Positive Feedback from Teachers</td>
<td>30%</td>
</tr>
<tr>
<td>Positive Feedback from Relatives</td>
<td>40%</td>
</tr>
</tbody>
</table>

Healthier Eating Behavior through FitLine®

1st Place: The FitLine® Group

- 30% less meat
- 30% less sweets
- 30% less soft drinks
- 30% more whole-wheat products

FitLine® Products are an optimal addition to the therapy of children with ADD

- Clear improvement of physical coordination
- Improved concentration
- With FitLine® products better at dictation
- Better grades through FitLine®
- FitLine® Products deliver optimal anti-oxidant protection
- Social behavior improves noticeably
- Healthier eating behavior through FitLine®
The participants in the FitLine® ADD Study

Testimonials ADD Study

“My name is Julian K. I am 11 years old. In January, it was still hard for me to concentrate, fidgety and didn’t feel like school. It was the same at home. We fought because of my homework, my grades and my writing. Sometimes I couldn’t even read anymore what I had written 20 minutes before. And then FitLine® came. After 6 weeks, my writing had changed so much that my mom asked me which girl had written in my notebook. My teachers were also wondering about my participation in class. Discussions about homework and grades haven’t happen anymore for a while. FitLine® not only has a positive influence on me, but also on my mom (she’s less nervous). Thank you very much for the great experiences with the “Magic Powder”.

“Hi, my name is Virginia M. I am 9 years old. Before I started taking the powder, I was very restless; I couldn’t sit still at school. My concentration was so bad that I couldn’t remember what homework I had to do right after school. After just 4 weeks, I was writing better and I could remember several things at once, so that my mom didn’t have to ask my friend about the homework assignments anymore. I didn’t as long to finish my homework anymore and had more time to play. After 6 months I improved at school. I get good grades and can pay much better attention. The Superkid and the chocolate bar tasted the best. Too bad I could only have a half a one of those.”
“My name is Marvin S., I am 12 years old and live in Nussbaum. Because I was already in 
ergotherapy because of my bad grades and my bad concentration, I was really eager to try the 
FitLine products in January. My mom was so convinced that she bought them for herself, too. 
After just a few weeks I felt more power in me, the homework didn’t take as long anymore and 
so I could get to go outside to play much earlier. The best thing is, though, that I have improved 
in almost every subject in school. Thanks FitLine. Marvin.”

“Hi, my name is Joshua E., I am 11 years old and live in Meddersheim. Before I took FitLine, I 
was a very fidgety and restless boy, who often interrupted class and got bad grades. A few 
weeks after I started, my teachers called my mom to ask what was going on with me. She said I 
was being calm and paying attention and if I was taking any pills. That praise made me happy 
and I know feel clearly better than before. Thanks. Joshua.”

“My name is Lukas T. I am 14 years old. Before I started participating in the study, my 
performance was so bad that I didn’t feel like school at all. I had no confidence, because 
everything went wrong anyway. Since I take FitLine my life has changed. My performance in 
school has gotten much better, I am much more confident. The Restorate® drink has helped me 
a lot with falling and staying asleep. I am fit in the morning when I get up and rested, thanks to 
FitLine®.”

“My name is Christopher K., I am 9 years old and took Superkid Orange, Protein Bar and 
Restorate regularly from January through July 2004. I feel great, I don’t get on my parents’ 
nerves as much anymore, and I am calmer in school and get better grades. I learned to eat fruit 
and I think FitLine® is great!”