

FREE YOUR CHILD'S SPIRIT AND INTELLECT!

D Y S L E X I A

**PROVE TEACHERS AND
EXPERTS WRONG!**

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This is a free chapter (9) about overcoming Attention Deficit Hyperactive Disorder - ADHD and may be distributed further provided that Joseph Kennedy as author is quoted.

9. "Why is my child so inattentive?"

Dyslexia and attention deficit

"What do you mean, Mama?"

"You know, I'm beginning to ask *myself* the same question. I asked you to get two bottles of mineral water from the cellar a quarter of an hour ago - and here you are sitting at Daddy's workbench and tinkering around! What are you doing with the sandpaper and scissors?"

"Making butterflies."

"But it just doesn't fit together!"

"Yes, it does, Mama. Look, it works when I do it like this."

"Hmm, so it does, well done. Oh, now you're distracting me! Take these two bottles to your Daddy at once."

"Yeah, okay."

"Who should you bring them to?"

"Daddy."

"Who?"

"Daddy!"

"That's right, now run along – and make sure you *do* go to Daddy! Here's me running around after you all day to make sure you get things done!"

"Thanks, Mama, that's kind of you!"

"Oh, get out!!"

The parent's dilemma

The dilemma faced by parents of inattentive children

Some parents despair completely when faced with the chronic inattentiveness and forgetfulness of their children while, at the same time, often wondering just how well their child can focus on a task when it seemingly wants to. This is well reflected in the example of Emilia making her sandpaper butterflies!

If this scene is familiar to you, your child could also suffer from an attention deficit in addition to its dyslexia. If so, it certainly would not be alone in this respect. Many children suffer from dyslexia *and* have great difficulty directing their attention.

We all know that children are *naturally* unpredictable at times and tend to follow their hearts when it comes to doing things, sometimes failing to adhere to the rules and acting in a manner that goes beyond accepted norms. They forget agreements or drive their parents to the brink of a nervous breakdown with their fidgeting. This is normal to a certain degree.

However, there are also children who all too often deviate from the norm and get into trouble as a result. They seem incapable of breaking out of their absent-mindedness and high spirits. If this behaviour is encountered at such a blatant level, it may well be that chronically poor concentration is the cause of the problem. This is also known as attention-deficit hyperactivity disorder (ADHD).

Alarm signals

By and large, parents of such children tend to notice that their child is easily distracted - *frequently*. Indications of this include fidgeting at the dinner table and getting up and running to the window if someone passes. Your child finds it difficult to concentrate and focus on the task in hand. When it comes to cleaning their room, your child is often willing to do this but cannot finish the task, being continually distracted by the things they find.

A child with an attention deficit often exhibits little endurance when it comes to everyday tasks such as preparing their school bag properly for the next day in school. When you try to talk to your child about these things, they suddenly begin to tell you about the neighbour's dog! Many of these children have difficulties when it comes to organising tasks and activities, simply because their

attentiveness fails them. As a consequence, games and activities that they want to do with others often never take place.

The affected child frequently fails to carry out instructions completely and is forgetful in everyday activities, not knowing what homework they have to do and often losing and mislaying school things and other objects. As a parent, you are constantly reminding your child what to do, admonishing them when they forget or do something wrong and ensuring that their behaviour does not cause too much trouble. Discussions with educators, teachers, other parents and neighbours regarding this behaviour are more the norm than the exception.

It is the inattentiveness which troubles so many parents. It is particularly frustrating when your child appears not to be listening, and a generous dose of patience and understanding is required here! Inattentiveness can occasionally lead to your child endangering themselves. For example, on a visit to the swimming pool, you tell your child to stay with you in the changing room until you have dressed but, as soon as you turn your back, your child is gone and getting ready to jump into the deep end of the pool, even though they cannot swim!

Things become really exhausting if an attention deficit is further complicated by hyperactivity. Your child is constantly restless, frequently fidgets with their hands or feet, is unable to remain still and spreads restlessness and irritation among others. They find it difficult to play quietly and are often “on the go from morning to evening”.

Your child behaves as if they are driven by an inner engine to be in a constant state of motion (and, in fact, this is indeed the case). This behaviour can extend to bedtime, as these children often find it hard to go to sleep and are very restless the whole night through. Many wake up at night and are afraid. In addition to being exhausted trying to keep up with their children, parents are also astonished by what they can achieve, be it in a sporting, musical, technical or other creative areas!

The actions and behaviour of a child apparently “driven” in this manner are the main features of hyperactivity. In addition, babbling and effervescent chatter is also frequently observed. Your child comes home, throws their school bag and jacket down somewhere – having left their hat in school and, naturally enough, their homework – and tells you in, so to speak, a *single* breath about an argument between two children during the break, what the teachers did or did not do and how stupidly the caretaker was dressed ...! After relating this tale for ten minutes without a break, they suddenly walk away and start to play with their robot. Two minutes before lunch, your child suddenly grabs their bike and cheerfully cycles off

These children may have a hard time in school. Despite their (often) high intelligence, they have difficulties following lessons and observing the rules at school. They are continually distracted. If a classmate drops a pencil on the floor, your child turns around immediately. These children can have enormous problems when it comes to just sitting quietly, and they not infrequently disturb other children through the constant unrest they spread. “Can you lend me your pencil? I've forgotten mine.” – “What kind of a pencil case is that? Where'd you get it?” – “I'll borrow a copybook from Thomas.” – “I want to see what those men outside are doing.” – “Frau Kübler, I lost a shoe during the break!”

In addition, they fail to complete tasks and – as described above – forget to write down their homework or do not even *realise* that they have homework assignments on a given day!

Inattention and hyperactivity are often associated with impulsiveness. These children act *immediately* without thinking and have difficulty waiting until it is their turn to do something. They often blurt out answers in the classroom, despite not being asked by the teacher. An impulsive child tends to interrupt and disturb others, trying to impress them while, at the same time, acting the clown in class. Telling such a child to be quiet is often ineffective, because these children do not really have themselves under control.

If such a child is confronted concerning its behaviour, they will try to deny their difficulties in order to save face and because they do not understand why they act this way. Impulsive children act without thinking, running across the street without first looking both ways. They are constantly involved in conflicts because they interfere with and rub people up the wrong way, cause unrest and put themselves at risk.

There are two different types of ADHD, but mixed forms are also encountered. In addition to the robust, hyperactive and impulsive case, a quiet, dreamy and sensitive type of child also exists. This

second variant without hyperactivity is frequently referred to as ADD (attention deficit disorder). The children affected are often extremely sensitive. At the slightest rebuke, they burst into tears and run off crying, or they counter attack and reproach their parents, often with tears in their eyes.

These (dreamy) children are so sensitive that many parents feel they can only be handled with kid gloves. Parents modify their own behaviour, compensating in as far as possible to accommodate their child and trying to deal with their sensitive offspring in an even more diplomatic and considerate fashion.

They often have the impression that their child's emotional development has been delayed by one or even two years. ADD children appear childish when playing with other children, are poor losers and complain a lot if they do. They feel rejected if their friends react adversely and, in fact, are easily pushed to the edge of the group.

Such children not infrequently slip into depression.

Strong mood fluctuations are a typical side effect encountered in ADHD and ADD: your child is day dreaming happily one moment, but totally devastated the next. The hyperactive child often experiences alternating phases of enthusiastic activity with aggressive outbreaks followed by total exhaustion.

If you have a child with dyslexia, it may also suffer from ADHD without you having yet recognised this. It has become evident in our school that dyslexic children and adolescents suffer more frequently from ADHD than one thinks. The ADHD has remained undetected in the majority of these cases.

Why ADHD frequently remains undetected

Detection is difficult because many doctors, specialists and educators regard the behaviour of a baby or child as normal during the developmental stages of a pre-schooler. Many ADHD babies cry a lot at night (and during the day). Indeed, in many cases, this behaviour is practically uninterrupted, so parents instinctively take the baby or toddler into bed with them. This pattern may continue for several years, with the parents' actions often being interpreted as a *cause* of the child's poor sleeping behaviour rather than a *reaction* to the child's indisposition and malaise.

Some of these babies even show signs of extreme restlessness on the changing table. Many parents think, "Well, it's just high spirits. My husband and I are also pretty high spirited!"

Parents may not have the opportunity to compare their child with others. It is quite natural for them to regard their own child's behaviour as normal and adapt to it. If it cries a lot, the parents think this is just "baby being baby". If it is unfocused and easily distracted, this is regarded as being a little exuberant and undisciplined. After all, boys will be boys, and, these days, girls are likely to be just as lively!

In the case of the "dreamers" who are typically uncertain and immature and tend to react very sensitively to criticism, parents adapt their style of upbringing to cushion the child's sensitivities, promote their talents and strengthen their self-confidence.

The restless type of behaviour becomes even more conspicuous when children participate in activities *outside* the family (such as children's gymnastics). The contrast to the behaviour of other children becomes clearer in this situation. Parents tell us that, due to an inability to stick to the rules, their children are often banished to the bench for not paying attention.

Parents are often questioned by the trainer about their children's behaviour. Mothers are also addressed again in the nursery or kindergarten regarding their child's lack of discipline. In other words, trainers, childcare providers and, later, schoolteachers simply consider these children to be badly brought up.

Parents are also frequently reproached by relatives because the children are deemed spoilt, too lively and come up with the craziest of ideas. Does this sound familiar to you?

Some parents vehemently reject this interpretation and ignore the behaviour of their child, while others go to the greatest of lengths to wean the child from their disturbing behaviour, with the parents' efforts frequently being rewarded by failure and they themselves being left feeling helpless.

This is especially true when it comes to hyperactive children. “Dreamers” are far less conspicuous. If they are noticed at all, they are classified as “followers” and considered harmless and not to be taken seriously.

The problems will only continue to grow if ADHD is not recognised and treated. Hyperactivity and impulsiveness can lead to aggression, because the children do not have their own behaviour under control and frequently do not even register or misunderstand the non-verbal and verbal signals of their playmates and teachers. These children have no bad intentions and often come from loving, friendly families. In the case of the dreamers among them, there is danger that they may shut themselves off even more, be ignored by their classmates and teachers and drift into depression because they are unhappy about their condition. It is therefore important to check carefully to ascertain whether your child has ADHD or not.

How to recognise ADHD

Only an experienced specialist is capable of reliably identifying ADHD, as they can conduct sound, systematic tests. However, you need a well-founded suspicion if you wish to consult such a doctor. An orientation test exists for this purpose which is based on the guidelines of the DSM IV (*Diagnostic and Statistical Manual of Mental Disorders*). It has proven to be a useful indicator under practical circumstances for detecting ADHD in children. A series of descriptions in this test allows you to estimate the degree to which they apply to your child. This helps you to determine if your child has perhaps ADHD and the severity of the disorder.

It is best to conduct the test three times, simply because your estimation is purely subjective. You should then print out the results which appear most objective to you and take them to the specialist.

For further information search the web using children with add and adhd. These sites are also considered to be very helpful:

<http://www.chadd.org/>

<https://www.adhdfoundation.org.uk/information/parents/>

ADS/ADHS orientation test

To complete the test, tick off only *one* feature in each case.

Short attention span – poor concentration (I)

My child is easily distracted

Never Rarely Sometimes Very often

My child has trouble paying attention

Never Rarely Sometimes Very often

My child rarely completes one activity before moving to the next

Never Rarely Sometimes Very often

My child forgets that which it has learnt

Never Rarely Sometimes Very often

My child makes many careless mistakes during school work

Never Rarely Sometimes Very often

My child appears not to listen, even when spoken to directly

Never Rarely Sometimes Very often

My child frequently finds it difficult to organise tasks and activities

Never Rarely Sometimes Very often

Short attention span – poor concentration (II)

My child has no endurance (when it comes to everyday things)

Never Rarely Sometimes Very often

My child suddenly talks about other things

Never Rarely Sometimes Very often

My child frequently fails to carry out the instructions of others completely

Never Rarely Sometimes Very often

My child does not know which homework it should do
 Never Rarely Sometimes Very often

My child frequently loses or mislays objects
 Never Rarely Sometimes Very often

My child is frequently forgetful during everyday tasks
 Never Rarely Sometimes Very often

My child switches abruptly from one task to the other
 Never Rarely Sometimes Very often

Hyperactivity

My child frequently fidgets with its hands or feet
 Never Rarely Sometimes Very often

My child cannot sit still
 Never Rarely Sometimes Very often

My child is a cause of unrest
 Never Rarely Sometimes Very often

My child is a cause of irritation
 Never Rarely Sometimes Very often

My child frequently finds it difficult to play quietly
 Never Rarely Sometimes Very often

My child is frequently "on the go"
 Never Rarely Sometimes Very often

My child frequently acts as if "driven by a motor"
 Never Rarely Sometimes Very often

My child talks excessively
 Never Rarely Sometimes Very often

Impulsiveness

My child frequently blurts out answers
 Never Rarely Sometimes Very often

My child denies having difficulties
 Never Rarely Sometimes Very often

My child finds it hard to wait until it is his/her turn
 Never Rarely Sometimes Very often

My child interrupts and disturbs others
 Never Rarely Sometimes Very often

My child shows off and acts the clown in school
 Never Rarely Sometimes Very often

My child is constantly involved in conflicts
 Never Rarely Sometimes Very often

My child acts without thinking
 Never Rarely Sometimes Very often

My child runs off without thinking
 Never Rarely Sometimes Very often

Sensitivity, possible depression

My child has strongly fluctuating moods
 Never Rarely Sometimes Very often

My child is easily hurt and reacts angrily
 Never Rarely Sometimes Very often

My child is *extremely* sensitive to criticism
 Never Rarely Sometimes Very often

My child is quick to cry
 Never Rarely Sometimes Very often

My child is a bad loser
 Never Rarely Sometimes Very often

My child has very little self-esteem
 Never Rarely Sometimes Very often

My child is despondent to the point of being depressed
 Never Rarely Sometimes Very often

My child seems to be more childish, less mature
 Never Rarely Sometimes Very often

The test is evaluated as follows:

If you come to the conclusion that the statements relating to your child are predominantly categorised under *sometimes to very often*, I recommend that you consult an experienced ADHD specialist.

ADHD test – advantages and disadvantages

A good ADHD test such as the above, provides you with the orientation you need, preparing you for a visit to a specialist and allowing you to present your reasons for suspecting ADHD in your child. These recognition criteria are sober and impersonal, having been developed by medical professionals. *You can and should cite examples of your child's behaviour during the meeting which match respective recognition criteria.*

The disadvantage is that all these assessments are subjective. What is “normal” in childhood or adolescence, and what not? The aim is to leave the realm of the subjective and to move up into that of the objective, and this is achieved by comparing your child with as many of their peers as possible. You should also list feedback from relatives, friends and educators that enables further objectification. The expert can then make a clearer diagnosis based on so much relevant information.

Other possible causes of poor concentration

You should also have a general practitioner check whether your child's poor concentration has completely different root-causes to that of ADHD. There are a number of illnesses and deficiencies that can cause similar symptoms.

Even if your child has little or no attention deficits, it makes sense to have them examined. This is a necessary step, both for the welfare of your child and overcoming their dyslexia.

Low blood pressure

Hypotension, a condition characterised by low blood pressure, can be identified through a simple medical examination. The aforementioned neurologist and child psychiatrist, Dr Fritz Held explained it as follows:

Hypotension occurs during childhood where a familial disposition prevails or as a concomitant symptom of a physical growth spurt. It is afforded too little attention because its symptoms are confused from the outset with a neurosis or even laziness. Hypotonic blood pressure can simulate a whole arsenal of neurotic symptoms:

- Fatigue, listlessness
- Dysphoria (general dissatisfaction) tending towards irritated aggression or depression
- Headaches
- Stomach aches
- Sleep disorders
- Concentration weakness

- Lack of performance

Hypotonic blood pressure is primarily responsible for typical restlessness while sitting which involves instinctive purposeful movements. The muscular pumping effect associated with these cause blood which has sunk to the lower half of the body to be pumped upwards again, thus preventing deficient blood circulation in the brain. This is the reason why hypotonic children enjoy playing games of movement. When seated for long periods at school or during homework, they exhibit the symptoms listed above which were then incorrectly interpreted as laziness, but were in fact caused by the act of sitting itself.

Iodine deficiency

Too little thyroid hormone is produced if there is a deficiency of iodine. The thyroid gland then enlarges in order to distribute the iodine (which is not available in sufficient quantities) as efficiently as possible. Iodine deficiency is determined by a medical examination. External identifiers are:

- Indisposition/malaise
- Feeling of fatigue
- Lack of concentration
- Listlessness to a complete slowdown
- Feeling cold
- Scaly skin
- Shaggy hair
- Circulation disorders

A child suffering from iodine deficiency behaves rather passively and exhibits certain traits associated with depression. It literally does not feel comfortable in its own skin. This condition can usually be remedied by administering iodine tablets.

Iron deficiency

Iron plays an important role in the formation of blood and transmission of oxygen. Fatigue and a pale facial colour are typical symptoms of iron deficiency. External identifiers are:

- Poor concentration
- Fatigue
- Slack, listless behaviour
- Brittle nails and hair
- Hair loss
- Dry or pale skin
- Cracks at the corners of the mouth
- Feeling weak and panting under stress

Your child may be suffering from iron deficiency without exhibiting the above symptoms. These detection criteria do not apply to an *incipient* iron deficiency, given that the deficiency is still subliminal. A medical examination will also provide reassurance and clarity in this case.

Zinc deficiency

Zinc deficiency symptoms manifest themselves in increased incidences of allergic reactions, chronic exhaustion, lack of drive, brittle nails with white spots, hair loss and depression. Night blindness and dry eyes can also be experienced.

Zinc regulates cell growth, cell differentiation and the structure of cell membranes. It is therefore involved in all immune functions and is responsible for strengthening the immune system

Medical institutes recommend a daily zinc intake of 12–15 mg. Optimum use of zinc in the body is achieved in combination with histidine, an endogenous amino acid. A side effect of this compound with histidine is its anti-inflammatory properties, and the body's biological toleration of it is three times greater than that exhibited for pure zinc salt. Zinc-histidine preparations are available without a prescription from doctors and pharmacies (in Germany)

Poor eyesight

Our experience has shown that dyslexia and visual impairments can indeed go hand in hand. If your child cannot see the letters of a text correctly, they are not stored optimally in the brain. I therefore always recommend that the child's vision be examined.

In addition to ordinary impaired vision, a particular impairment of sight has also been discovered where it is assumed that the adjustment of the eye lenses is incorrect. This phenomenon is called accommodation impairment. The *International Association for Binocular Vision* has stated that this heterophoria can be remedied by the use of prism glasses (measuring and correction methodology according to Hans-Joachim Haase). (Sources: International Association for Binocular Vision.

Internet: <https://www.ivbs.org/information-in-english/>

Hearing difficulties

I also recommend having your child's hearing checked. Do not be surprised if the results fail to show *any* hearing impairment! Bear in mind that, although your child can hear well, they may not be able to process the phonetic sounds of letters due to the immaturity of the brain's reading and writing centre. In a manner of speaking, the cause of this specific hearing impairment is to be found at this higher level.

Cause of ADHD: Immaturity of the area of the brain area responsible for the direction and maintenance of attention

Attention regulation is a biological function of the brain, and the two frontal lobes are the pertinent areas for this function. This network is supplied with neurotransmitters as “chemical” messengers through which information is passed on from one nerve cell to the next. Scientists currently consider ADHD sufferers to be victims of an impairment of this function.

Let me explain: A transmitting nerve cell typically emits the neurotransmitter-messenger required to pass information to the next cell. The remaining neurotransmitters are reabsorbed by the transmitting cell after the information is transmitted.

In the case of ADHD, however, the neurotransmitters are reabsorbed so quickly by the transmitting cell that the receiving nerve cell does not have enough time to record the information. This leads to an actual lack of “steering-material” in the brain, with attentiveness and motor skills being particularly affected. Since ADHD is caused by inadequate transmission of neurotransmitters in the brain, attempts to remedy this deficit need to have a measurable *positive* neurological effect.

Complete *biological maturity* of this brain region is the *prerequisite* for the child's ability to control and direct attention and its social behaviour.

When we look at ADHD from the point of view of innate child development, it becomes clear what the learning disabilities, dyslexia and dyscalculia, have in common with ADHD. Delayed maturation of the functionality of the respective brain center is a typical manifestation in childhood. *These disabilities may occur individually or in combination.*

What can you do about ADHD?

What can you do to counter your child's poor concentration? There are some methods that are proven to work, others that seem to work for *some* children but less for others, and other methods that are frequently recommended but are *not* effective and can even be harmful

1. Ineffective methods

Homeopathy

Homeopathy is a controversial alternative method of healing. Surprisingly or, in fact, astonishingly, reports of success in the treatment of ADHD children with homeopathic remedies are repeatedly received. I say astonishingly because, according to the definition, no trace of the original active ingredient should remain in remedies prescribed! Opinions are divided here among orthodox medical practitioners on the one hand and naturopathic practitioners (naturopaths) on the other. Having said this, anything that really helps ADHD children in the long term should be considered as a possible remedy.

It is, of course, always beneficial if the affected child *believes* that they can concentrate better by taking a remedy. In fact (and studies have shown this time and again), in cases where homeopathic preparations are taken and a firm belief in the efficacy of this therapy exists, neurotransmitters are released in the brain, and this can lead to an easing of the symptoms. This phenomenon is known as a placebo effect.

My personal view regarding the efficacy of homeopathy is that in reality, homeopathic preparations do not contain any stimulants (apart from the sugars that make up the globules) and therefore, do not activate any metabolic process in the brain. A placebo effect is all well and good, but if you really want to overcome your child's ADHD, an active approach is called for, not a passive one.

Aphanizomenon flos-aquae (AFA or blue-green algae)

In Germany, both the Federal Institute for Drugs and Medical Devices (*Bundesinstitut für Arzneimittel und Medizinprodukte*, BfArM) and the former Federal Institute for Consumer Health Protection and Veterinary Medicine (*Bundesinstitut für gesundheitlichen Verbraucherschutz und Veterinärmedizin*, BgVV) warn against taking AFA algae because there is no scientific evidence that they can be helpful when it comes to ADHD. In fact, they can even be harmful to health! In 2002, the Federal Institute for Risk Assessment in German (*Bundesamt für Risikobewertung*) wrote:

“So-called AFA algae, also commonly referred to as blue or blue-green algae, are cyanobacteria (*Aphanizomenon flos-aquae*). It is known that certain strains of these organisms form toxins that can attack and damage the nervous system.”

Occupational therapy

Although many paediatricians prescribe occupational therapy, it appears to be more an attempt to soothe the mothers of restless children with an attention deficit than the children themselves. If children have difficulties with fine motor skills, this approach to treatment can be very helpful, but otherwise it is of little use.

Only activation of the brain metabolism at the synaptic gap can lead to an improvement in attentiveness. This stimulation must be targeted specifically at this brain region. Occupational therapy measures are too general in nature to induce the desired activation in the long term.

Psychotherapy

Psychotherapy attempts to treat the *effects* of ADHD on your child and, through therapy, to address the reactions of their environment to this condition, especially those of the parents.

The cause of ADHD is often sought in the manner of upbringing and personality structure of the people involved, rather than seeing it as the effect of a biological developmental delay in attention maintenance *in your child* with all its negative consequences for your child and the family.

2. Promising methods that achieve *partial* success

Successes are achieved in the following three methods, but it is unclear to what extent they can be *universally* successful in everyday life. They lead to stimulation of the brain, and activation of the brain metabolism is assumed.

Concentration exercises

“Lukas, concentrate on the candle flame for three minutes, then you can go and play.”

Three minutes later: “Well done, we'll do it again tomorrow!”

Doing concentrating exercises with your child is a step in the right direction, as this exertion triggers an increase in the dopamine and serotonin neurotransmitters. This is exactly what your child's brain needs to strengthen their attention. However, the effectiveness of this approach depends on the intensity and regularity of training. This method is arduous and requires a great deal of discipline and perseverance. It can take years to achieve useful results – if at all.

Taking omega-3 and omega-6 fatty acids

The daily intake of omega-3 fatty acid can alleviate hyperactivity – or at least these are the findings of the Oxford-Durham study conducted with 117 children. These results are supported by those achieved in a study conducted at the University of Adelaide with 132 ADHD children (the Adelaide Study). The effectiveness of omega-3 and omega-6 fatty acids is attributed to the positive impact of these substances on the functionality of the nervous system and brain. A further study at Oxford University (2012) showed that signs of hyperactivity and defiance lessened when omega-3 fatty acids were taken and that many children could learn to read better. It remains to be seen whether these encouraging results can be reinforced by further studies and experience garnered from everyday life.

Biofeedback

With biofeedback, your child's body signals are converted into images and sounds via sensors attached to the body and ultimately displayed as images on a computer. Your child is given a mirror image of their condition, enabling them to influence their body and mind in a manner which is probably otherwise only achievable through in-depth meditation. Positive changes in body functions are amplified through feedback on the computer.

To achieve this, your child places sensors (two small sensor plates which measure the electrical resistance of the skin) on their fingers. Measurement results are forwarded to the biofeedback device connected to your PC. A reliable device provides you with exact information on even the slightest changes in skin resistance. Even minimum relaxation or tensioning is noticeable as a result. Skin resistance measurements enable the conversion of your child's body signals and their integration in controllable children's games by the program.

For example, let's take a look at a *balloon game*. A meadow is shown on the PC screen, with a mountain landscape in the background. Suddenly, a colourful balloon appears on the screen. Using the power of thought, your child must try to land the balloon on the meadow. Your child needs to relax deeply to achieve this and, depending on how relaxed they are, their body's signals cause the balloon to descend ... or ascend. If your child concentrates very hard on relaxing, the balloon descends. However, should their concentration lapse or if they become excited, the blood flows away from their fingers toward the brain, which releases adrenaline, and beta waves are produced instead of alpha or theta waves; the balloon flies away.

Your child must try to train their concentration and attention so that they can achieve a state of deep relaxation. At the same time, they try to perform well by gaining more points in games than their last attempt or by outplaying their playmates. Good biofeedback products offer a variety of games and playing variations whereby the level of difficulty and sensitivity of measurements can be varied.

The findings of Dr Ulrike Leins' scientific investigations at the University of Tübingen in Germany have tended to underline the effectiveness of playful neurofeedback applications with children. According to Dr Leins, training with these devices achieves results which, if not better, are just as positive as those achieved through treatment with medicine.

I must admit that I don't find this conclusion particularly surprising! After all, the ultimate goal is stimulation of the brain to animate its metabolism. Self-stimulation of your child – encouraged by the ambition to win the game – probably releases the appropriate neurotransmitters your child needs to remain calm and concentrated, and it may also be assumed that brain maturation is simultaneously activated.

Advantages of biofeedback games:

Families can spare themselves the stress of introducing and administering a course of medication. The games are completely devoid of any side effects and can be played together with others or alone. The results are measurable (namely how deep and well your child can relax). Acceptance

among teachers, educators and other experts is generally greater than for medication. Children can play at home, and the games are relatively easy to integrate into day-to-day family life.

Disadvantages of and difficulties relating to biofeedback games:

Solid scientific evidence (and some very positive feedback for our mail-order department creative learning, *crealern.de*) exists to support the benefits of these games, but not to the same extent as is available for treatment with drugs. Scientific opinions are not yet unanimous with regard to the scientific relevance of these positive results.

As with all curative education measures aimed at maturation of a particular brain region, children need to practise these regularly. *Repetition* is what counts! These exercises must be scheduled parallel to typing exercises, alphabet games and, where appropriate, arithmetic games. This is eminently achievable if you take a determined and planned approach and win over the school's support.

Unfortunately, more than a few children tend to cheat to achieve better results. The sensors can be manipulated by pressing actions. If your child is inclined to fool about, you should always remain present for as long as they are playing.

3. Methods that have been proven to work in the long term

Medication

The most well-known medications to have achieved this effect under practical conditions and in numerous studies over the last few decades are *Ritalin*, *Equasym* and *Medikinet*. All of these contain the active substance methylphenidate, and there are now several other medicines and active ingredients of this kind available on the market.

Less familiar, but perhaps more benign in its action, is *Piracetam* which Dr Held used for many years in his practice. With regard to the biochemistry of *Piracetam* (and, indeed, the effect of this group of stimulants), he writes the following in his treatise on "Drug-Supported Brain Maturation Therapy in Childhood and Adolescence" (*Der Kinderarzt*, Volume 15, 1984, No. 8) As far as I can ascertain recent studies show similar improvements in maturation.

<https://www.healthline.com/nutrition/piracetam#section2>

"If we consider biological maturation to a level of appropriate functioning to be a specific brain function of childhood and adolescence, and if medications exist which physiologically activate the brain metabolism, it is consistent that maturation can be activated in this way. Biochemical studies on animals indicate an improvement in the energy potential of the brain cell achieved through a faster ATP turnover. *Piracetam* increases the rate of incorporation of radioactively labelled phosphate into cerebral organic phosphate compounds and stimulates the metabolism of phospholipids and nucleic acids (Giurgea, Gobert). The increase in neuronal protein formation was determined indirectly through the increase in polysomes, the protein synthesising devices of the nerve cell (Burnotte). *Piracetam* therefore promotes the metabolism of the brain, an indispensable prerequisite for the uninterrupted execution of all brain functions."

In the same issue of *Der Kinderarzt*, Dr Held also points to the positive effect of *Piracetam*, not only in the case of poor concentration, but specifically in the case of learning difficulties. This conclusion is further supported by the work of Colin Wilsher et al. (editor): *Developmental Dyslexia and Learning Disorders. Diagnosis and Treatment*, Vol. 5 of the series *Child Health and Development*, Paris, 1987 (publisher: Karger). Saviour P. and Ramachanra N.B. Biological basis of dyslexia: A maturing perspective. *Current science*. 75 Jan **2006**. vol. 90, No.2.pp:168-175. xxxiii. Connors, C.K. and Schulte, A.C. Learning

What you need to consider

Competent professional support is crucial if medication is to be successful. You need a doctor who has been well trained in this field, is knowledgeable in this respect and can provide evidence of success.

If a diagnosis has been made, treatment begins with a very small dose (as it is best to be on the safe side) in the morning. This remains ineffective in the majority of cases. The dosage is gradually increased until the child's symptoms are reduced. Children often fail to notice any improvement in the beginning, which is why the observations of parents and educators are extremely important. If

the specialist considers an optimum dose has been achieved, this is then maintained and adhered to for the whole day to achieve the best possible results in terms of attentiveness and behaviour and, as you now know, maturation of the relevant brain region.

During this maturation process, your child may again appear inattentive, restless, and depressed. In this case, the experienced practitioner knows that the dose should be reduced. Step by step, the treatment continues in this manner until the desired maturation has been achieved and medication can be completely discontinued.

It is important to note that children can react with differing degrees of sensitivity to the variety of medications and the active ingredients involved, meaning it is equally important to determine the most suitable active ingredient by conducting several tests where necessary.

Individual dosage

The metabolism of the brain differs from child to child, as does the degree of immaturity of the brain region that controls attentiveness. Your child or adolescent is in the midst of a dynamic learning and growth process, which is why it is crucial to find the appropriate dosage for each individual. This can be very low in exceptional cases (perhaps only a quarter of the usual 10 mg tablet), but also high in others. A brief anecdote illustrates this well. At an ADHD symposium which we organised in Tuttlingen; a well-known expert told a story about a grandmother who had forgotten his instructions concerning the amount of medicine. When asked during a check-up how her grandson was now faring, she replied, "Thank you, Doctor, he's fine. He takes his eight tablets every day, and he's really getting on great now!"

Other experienced physicians also report the achievement of very good results through individual dosage, even when this is higher than the norm. On the other hand, it is not uncommon for your child to show no reaction to the medicine, purely because the dosage is too low (probably due to ignorance or exaggerated cautiousness).

Disadvantages of medication

Medicines such as *Ritalin*, *Medikinet* and, to a lesser degree, *Piracetam* are stimulants similar to amphetamine, and they can have a powerful impact.

Unfortunately, the public perception of medical treatment is often coloured by negative reporting. Horror stories about ADHD treatment producing confused, overdosed children repeatedly circulate in the media. In fact, it is often the case that the initial dose administered is too high and your child reacts negatively (as in an extremely apathetic reaction). An experienced doctor then immediately lowers the dose until the ideal dosage for your child is determined.

The word is: always begin low.

Monitoring the intake of medication

Medication needs to be taken regularly throughout the day. Problems arise when a child forgets to take the tablet in school or deliberately neglects to because it is embarrassing in front of classmates. Some children simply do not want to take the tablets. Delayed-release dosage has improved this situation today, with the capsule being taken in the morning and the active substance releasing slowly up until noon. This delayed-release dosage form may need to be additionally supported by conventional tablets or parts thereof to achieve the optimum effect.

Side effects of methylphenidate

Despite care and a very gradual increase in the dosage, side effects may be experienced. Many children lose their appetite until the effect of the drug fades in the evening. Experts therefore recommend moving the family's main meal to the evening. The drug is still working if children are still not hungry in the evening and, in this case, the dosage should be checked again and fine tuning undertaken. Sometimes the dosage is no longer sufficient to increase the ability to concentrate, but still so strong that it suppresses any feeling of hunger.

Insomnia is frequently cited as a side-effect, which is also a reason for adjusting the dosage so that the effect abates in the evening. Should this prove inadequate, a trial with other medicines is a sensible decision. As already described above, Dr Held believed that *Piracetam* is very effective in encouraging maturation of the ability to concentrate – without side effects.

There is also a risk of possible abuse of medication, as reports of ADHD medicines being taken as intoxicants are not an infrequent occurrence.

Positive side effects

Apart from the fact that children generally react very favourably when the drug is successfully introduced and due to the improved level of attentiveness and behaviour achieved, a number of further positive developments should also be mentioned. It has been observed that the area of motor activity improves, an example being in the maturation of muscle tone. As a consequence, the bladder muscles function as they should, and bedwetting ceases.

In addition, parents report time and again that their child can now *draw* accurately or is suddenly able to cut straight along a line with scissors, something they never succeeded in mastering previously. Writing also usually improves very quickly – to the teacher's (and everyone else's) relief.

Improvements in social maturity and both literacy and arithmetic skills are achieved. I am often invited by ADHD experts at this point to demonstrate how the remaining "residue" of dyslexia and dyscalculia can be overcome. Other positive side effects include maturation of the immune system and the reduction of autoimmune symptoms such as neurodermatitis or hay fever.

To conclude, it should be pointed out that not all children respond to treatment with such stimulants, and about 20 per cent fail to react at all to this therapy.

Audio-visual stimulation

In this method, stimulation occurs while listening to "coded" impulse recordings which underlay relaxing music. The recordings are made on CDs or mp3 files. These special sound impulses are sent to the brain of your child, activating those brain waves that are also generated when we feel comfortable, relaxed, friendly and creative. In short, children become more relaxed and focussed through the improved distribution of relevant neurotransmitters in the brain.

In addition, musical sound impulses can actually be *seen* with the aid of special glasses! In a study of the Mind's Eye Plus audio-visual program in 1990, Bruce Harrah-Conforth noted that test individuals also generated alpha waves without sound impulses through visual stimulation with special LED-equipped glasses.

"Ski goggles" of this kind are equipped with small light-emitting diodes that transmit light pulses to the closed eyelids. Users of good products usually report that the image patterns generated are pleasant, colourful and diverse. What is important for you and your child is that your child's brain is stimulated as a result and with increasing intensity. Stimulation is the key to success in your efforts to overcome your child's poor concentration and/or hyperactivity!

Advantages of audio-visual stimulation

The device and CDs and mp3s are very easy to handle and versatile in their application. Your child can lie on the sofa after school and enjoy the benefits of an AVS session. In addition to homework and our concept for overcoming dyslexia, you can also run an AVS CD in the background. During lessons in the *Kennedy Tutorial School*, we compared exercises with and without a CD and found that children concentrated better with a CD in the background, being less restless than without CD music.

Due to the frequency with which sleep disturbances are encountered in ADHD children, it is recommended that children be allowed to enjoy a thirty-minute session in bed. Don't forget to look in after this time and take the headphones and glasses off your sleeping child.

If the audio-visual method is applied regularly, the positive results achieved with very little effort are extremely convincing. These have been proven in scientific studies which demonstrate an effect as positive as with Ritalin. For example, Harold L. Russell conducted numerous investigations into the long-term effectiveness of AVS on schoolchildren between 1994 and 1996 at the University of Texas. The positive effect is most evident in everyday practice, and we frequently receive feedback from parents who say that their children can concentrate better, are more attentive, feel better and, in almost all cases, sleep sounder and without interruptions.

Audio-visual stimulation is an extremely practicable complement to alphabetic training which can be easily integrated into everyday life.

Disadvantages of audio-visual stimulation

- The visual application is unsuitable for epilepsy sufferers, due to the flickering LED lights employed.
- A gradual, step-by-step approach needs to be adopted with very sensitive children. The length and intensity of the application (sound and light intensity) are gradually increased.
- Your child should use the application for 20 to 30 minutes daily, which is why a wide selection of good music tracks is required.

Behavioural training

The behaviour of ADHD children and adolescents can be greatly improved by forging agreements developed together on how they should behave in different situations. With the aid of an experienced specialist who structures the entire daily routine together with child and parents, this approach can be very effective.

This not only involves discussing how your child should behave, but also the reaction of parents and educators in the event of misconduct on the part of the child. Assistance is also offered. For example, posters are created with your child and placed around the house, indicating what should be done during the morning, at noon and in the evening. In addition to cleaning teeth, setting the table and clearing away the school bag, this can also include the condition in which the bathroom should be left, when homework is to be done, when TV can be watched, when to go to bed and what to do beforehand.

Rules of play are also developed for communication within the family. Finally, measures to be taken following misconduct are agreed.

This gives both your child and family a greater sense of security and a *framework* in which they can move with confidence. Many ADHD experts recommend behavioural training of this nature in addition to medication.

Disadvantages of behavioural training

Behavioural training is an effort-intensive approach and, as always when bringing up children, demands a lot of stamina, determination and assertiveness. These days there are courses for parents wishing to hone and improve their skills in dealing with their ADHD child. The *effects* of ADHD can thus be reduced to a minimum, depending on the particular case and severity – but not the symptoms, which your child will continue to exhibit.

My recommendation for you

This book has helped you to determine whether your child has dyslexia or dyscalculia or not, and possibly if it also affected by ADHD. Should there be any suspicion of ADHD, scrutinise your child three times with our online test and find an experienced ADHD doctor to clarify whether your assumption is justified. Include examples from everyday life to back up your suspicion. In addition to home life, these should also include school and the observations of relatives and friends. Describe, using examples, your child's struggle with this disorder from early on, including infancy, nursery or kindergarten and the present. The doctor can then advise you on appropriate measures.

Parent initiatives where families affected by ADHD advise and support each other are extremely useful. Many of these parents have had similar experiences to you, frequently undertaking a very lengthy journey before they resolved their problem. You can benefit from their experience and significantly shorten your road to an effective solution. Parent initiatives in your region can be found on the internet. Put in your town and the term *adhd parents' initiative*, for example *parents ini adhd Tamworth Staffs England*

or www.chadd.org > *find a local chadd USA*

ADHD is worrying for both parents and children, especially if it occurs in addition to dyslexia and/or dyscalculia - *which is the rule rather than the exception*. But if you and your child remain resolute, practice

with letters and quantities and meticulously apply the remedial measures for ADHD appropriate for your child, the affected brain regions will develop and mature, they always do! Your child can overcome their difficulties within a year.

So, let's get down to work! Believe me, you can do it!