

The Introduction of Birthlight Special Baby Yoga in Moscow Hospital by Oxana Tsyshkova
-rationale for neuropsychological and physiological practice on neonate development-

The early years of a child's life are a very important period. It is the time when an incredible leap in development takes place: from developing the sight, the formation of fine motor skills such as those associated with refining the use of voluntary finger movements, communication skills, independent play and free movement.

The stages of natural development are well documented, and frankly speaking, everybody knows instinctively what a healthy child between the ages of 12 and 24 months should be able to do.

But what do we do when something goes wrong?

Any issues involving an infant is always painfully received by the parents. This is a natural instinctive reaction of an adult and, at the same time, creates stress that in turn produces a state of heightened anxiety. This fear comes from the thought that the child will not be "like everyone else" and an uncertainty around his or her future. It can form a vicious circle: the more pronounced the deficit of development of the child, the greater is the parental anxiety.

Because of this desperation, typically parents of special children overload them with rehabilitation procedures. Their diversity and intensity, and sometimes even aggressiveness within the "race for the norm" conversely can create obstacles to the baby's adaptation, exacerbating the condition and even provoke a convulsive syndrome. As a rule, a child is not able to master a long-awaited skill either because of severity of brain damage, or because of excessive influences and stress impact.

The daily stress of the parents is transferred to baby through touching, intonation, breathing and even the consistency of the breast milk. And, as a result, a child reflects this condition like a mirror, manifesting it in the psycho-somatic reactions such as excessive undifferentiated muscle tone, increased intestinal colic, prolonged crying, poor sleep, etc., which in turn worsens the "microclimate" in the family, further convincing the parents how "seriously ill" their child is.

It is completely clear that children with developmental disorders of any origin require assistance and methods to activate their development, taking into account plasticity of the brain and the child's readiness to compensate these disorders. The question is HOW to do it and what constructive "help" consists of. Nowadays, it is generally accepted that the state health care system (Russian Federation) actively uses all sorts of methods of massage, reflexology, physiotherapy and medicines. All of them have their own level of efficiency and their place in the process. But almost all these methods are potentially painful and provoke negative emotions in the child. In some cases, the result is not an improvement, but rather a deterioration in the progress of skills due to the stressful reaction from the baby.

Due to these reasons, specialists all over the world are searching for methods that would contribute to the following fundamental points:

1. Creating calm and forming positive attitudes in the parents as they are the chief conductor of the emotions of a child.
2. Creating the desire and interest in the child to take part in the practices (which will reduce stress and therefore reduce pain and fear.)

Why yoga?

Yoga is very popular in the modern world. It's considered an antidote to stress. This system, unlike an exclusively physical culture, uses parasympathetic techniques and balances the excessive sympathetic influence of modern life. Doctors in developed countries are working on adapting yoga practices to ameliorate various diseases. This branch is called "Yoga Therapy". There are institutions of yoga therapy which research effectiveness of yoga techniques actively in America, India, England, Europe and, since recent time, in Russia. These techniques work with breathing, soft stretching to relieve local tension, change position of the body, and also work with attention effect like body-oriented psychotherapy, relieve excessive muscle tension well and have a positive impact on human health as a whole.

Parasympathetic systemic effects (see tab. 1):

Figures	SNS	PSNS
Heart rate	increasing	decreasing
Breath frequency	increasing	decreasing
Tone of skeletal muscles	increasing	decreasing
Diameter of the bronchi	increasing	decreasing
Blood pressure	increasing	decreasing
Motility of the gastrointestinal tract	decreasing	increasing
Release of digestive enzymes	decreasing	increasing
Tone of the CNS system (brain speed)	increasing	decreasing (up to falling asleep)
Exchange in energy substrates (glucose, fatty acids)	decay	synthesis
Diameter of pupil	increasing	decreasing

Thus, the main and most important engine for the child's development is in his parents and close relatives, those who are in touch with him constantly, who care and communicate. These are people whose actions the child imitates and copies. The child is naturally programmed to follow these adults most actively from 17 to 36 months. Beforehand a strong emotional bond is formed, the level of trust of which determines the child's degree of comfort. Positive attitudes within the family toward the child and the ability to produce cooperative adaptations create the "spirals of joy" – this is when positive emotions in the child provoke sincere parental joy and thus create mutual pleasure during communication. Strong emotional attachment, "bonding", sensory integration and emotional intelligence – are the "three pillars" of harmonious development of any young child. Special children with severe developmental disorders virtually hang in the state of "baby" and their degree of comfort depends on the presence of these "three pillars".

Neuropsychological support

Contemporary views of neuropsychology suggest that the child up to 2 years old activates the most ancient deep structures of the brain (cerebellum, cerebellar body and the middle brain, thalamus, reticular formation, limbic system). This is the first block of the three-level theory of the inclusion of brain structures by Alexander Romanovich Luria who is the founder of modern neuropsychology.

The first block is, first of all, the limbic system and the connected emotions. Therefore their positive quality is really significant at this age. Also, as the child matures, other sensory evaluators are gradually involving: the sense of smell, tactile sensations, vision, hearing and, finally, proprioception which is responsible for awareness of the body in space, offering a sense of balance through communication with the vestibular apparatus and cerebellum. But the limbic system window, i.e. formation of so-called emotional intelligence is still active. At the age of about 1.5 - 2 years there is inclusion of the second zone of the brain responsible for the analysis and gradual formation of long-term memory. The skills, acquired before, go deep inside becoming automatic, both muscularly and emotionally. The second zone completes its formation approximately by the age of 7. At the same time, the child becomes able to concentrate attention and is ready to process information logically, gradually forming intellectual thinking. During this period, the child is ready to go to school.

If a child has got hypoxic-ischemic or organic lesions of the brain, he goes through generally the same stages of maturation, but in its own, different mode. This must be taken into account and you should not rush the child! Perhaps he will be able to form an intellectual level, perhaps not. It totally depends on the extent of the injury within the brain structures and the potential degree of compensation. But the child can always feel comfortable! This is what parents of special children need to know, based on understanding the children's needs and their adequate satisfaction through a variety of sensory experiences, the so-called 'touch window', its individual development and, of course, positive emotions.

During the first year of life, such manifestations as sleep and wake disorders are also referred to the work of the first block of the brain. A Russian expression, "The old is like the small", can be said about the most solid connections, the deep automatism. Therefore it's essential to keep the mode throughout life, and this is especially true for "special" children. As the oldest first block of the brain is naturally concerned, young children and special children are 'weather-dependent'. And they definitely feel a lot more comfortable being closer to the nature. A particularly positive effect comes from water, breathing, and natural essential scents.

Why begin Birthlight Baby Yoga as early as it's possible?

Baby Yoga has a wide range of techniques available to work with both babies and parents. Skills acquired during the practice are subsequently transferable to the day-to-day care of the child and ensure the continuity of the positive impact on him / her. This system has a variety of sensory integration techniques and is consequently able to adapt to the needs of a child with a sensory deficit (e.g., impaired vision, hearing or impaired muscle tone). The system teaches a variety of correct skills to care for special children. It also takes into account the load on the body of an adult, teaches the correct distribution of muscle tone, comfortable positioning of the body without excessive stress, and ways of using of an effective type of breathing. In the complex and increasing stress resistance experienced in the adult body, balancing the nervous system, helping it to maintain necessary calmness improves the quality of life of the whole family.

The Birthlight Baby yoga system, was developed by Dr Françoise Freedman, a teacher from Cambridge University. It is used in Europe as early support for development of young children. In Russia a "Birthlight" school is represented in the heart of Moscow, some clips of Birthlight sessions can be found on YouTube, in addition, two books called "Water Babies" and "Baby Yoga" are translated to Russian.

Using the word Yoga means "communication" which implies development of intuition, the parent's attention to himself and absence of any violence against the child.

The system teaches skills necessary for easy and confident interaction with your baby, and takes into account growing needs, expanding as skills are acquired. In addition, it offers excellent physical exercises with elements of yoga for parents, incorporating postpartum recovery as much as possible, and maintaining efficient posture. As the weight and height of the child increases, the load on the musculoskeletal system of the parent also goes up, and all this often leads to discomfort during care and when carrying the baby.

For the last few years in developed countries, sensory integration methods have been adapting rapidly to infants with development deficiency.

In our center "Development" we are pioneering unique approaches and painless methods of rehabilitation based on sensory integration from an early age. The success of special families using these techniques in day-to-day care of their special children make us pleased and inspire us for further expansion.

We are adapting "Baby Yoga" to the approach by Jo Manuel, "Special Yoga for special children" for older children. In highly expressed neurological disorders, when the child cannot acquire a desired skill, we do not give up, and continue to teach the parent to build a dialogue with the child through sensory integration, maintain the symmetry of the body, use the techniques of manual muscle relaxation, sounds, breathing and pleasant touches. Thus, we form maximum possible comfort for the child and maintain a positive emotional connection, no matter what.

Within our intensive course we suggest:

1. A "School for parents." Where we encourage dialogue and discussion of the most frequent issues faced by families raising children with special needs. (4 thematic meetings during intensive courses).
2. BABY YOGA for toddlers. We make a set of 3 groups, based on the readiness to acquire skills of milestones and walking. (individual and group lessons in a mini group of 3 people)
3. Create a class of yoga therapy "anti-Stress" for parents.
4. Special Yoga for children with neurological disorders (cerebral palsy)
5. Yoga class with emphasis on breathing practices for children with progressive neuromuscular diseases.

My best regards,

Oksana Tsyshkova

the project's author, pediatrician, researcher,

certified yoga teacher.