Sensory Nutrition

How We Can Nourish Our Children With Healthful Food for the Senses

BY ADAM BLANNING, MD

Caring parents devote a lot of energy and consciousness to providing good nutrition for their children. During pregnancy, the conscientious expectant mother eats a balanced diet rich in vitamins and minerals and avoids potentially toxic substances and medications. After birth, she nourishes the infant with her own milk or the best possible substitute. Then, when the child's teeth appear, she gradually introduces simple solid foods in order not to overwhelm the still primitive digestive system. As the child matures and increasingly chooses his own nourishment, the mother still strives to provide healthful food and pure water. This is a natural progression. When it is ignored or reversed, the still sensitive development and growth of the young child can be interrupted and injured.

Taking in the world from the back seat

This concern for the nourishment of our children is instinctive, appropriate, and wise. But nutrition encompasses more than good food and water. What comes in through our senses—sight, hearing, touch, smell, taste—is also a form of nourishment. We and our children are every day bathed in "sensory nutrition." Some of it is chosen and taken in consciously; much comes in without our being aware of it. Unfortunately, this sensory nutrition is a deeply neglected aspect of the life of the young child.

In the womb, the child has been gloriously open to the nutritive substance, fluids, and warmth provided by the mother's body. Then, suddenly, the newborn is exposed to the world. The infant must independently maintain her warmth, breathe in her own air, and take in fluid and food on her own. In the same way that these physiologic processes are suddenly made independent and open to external influences, so, too, are the senses now newly open. They are also raw and unprotected.

A prematurely introduced food enters too deeply into the child's delicate digestive physiology and can create a predisposition toward food allergies. In like manner, for the newborn infant, the world of sight, smell, touch, warmth, taste, balance, and sound have an immediacy that is no longer mediated by the mother's body. Excessive, inappropriate sensory stimuli overwhelm the delicate sense organs of the infant or the young child and can result in what we may call "sensory allergies." These arise out of too much stimulus coming too soon.

To understand the concept of a sensory "allergy," it is useful to think about what a sense organ is. A sense organ is a place in the body where an outside stimulus enters directly into the body, without modification, so that it can be inwardly experienced. The properly functioning eye gives a true and undistorted picture of what stands before us, the healthy ear an accurate sense of what sounds around us. The sense organs are open and receptive. They do not, they cannot, discriminate or differentiate among the various stimuli, letting this one in and filtering that one out. And we cannot make them do so. We cannot choose which colors to see or which sounds to hear. Our sense organs are "on" all the time. We cannot turn off our hearing, or smelling, or taste.

If the adult is open and undiscriminating in relation to the sense information in the world, the infant or young child is even more so. One can say that the young child is entirely a sense organ. Perhaps the greatest danger in this lies in the intimate connection between outward perception and the accompanying inward experience of small children. They sense a stimulus and react to it almost in one movement. What is sensed is immediately mirrored in

Photo by Nagisa Arimoto

their inner physiology. When there is a loud noise, the young child immediately startles into movement. When someone around them cries, they start to cry. When they smell mother's milk, their digestive juices start to flow. Sensory experiences guide and influence the inner activity of the small child. These primitive reflexes do fade with maturity, but this intimate relationship between sensory experiences and inward physiologic responses continues throughout early childhood. Small children truly drink in the world with their whole body and being.

We know that regular mealtimes promote health. An infant, and a five-year-old, will thrive with rhythmic schedules, and each will let you know when it is time to eat again as their physiological "alarm clock" goes off. Regular mealtimes help the child's digestive system know when it is time to be ready for a meal, and when it is time to relax into the slower and more delicate process of absorbing good nutrients and excreting the wastes. Parents do well not to let a child "graze" with constant snacking, because the child is then required to be digesting food almost all of the time.

Imagine a delicious treat—one that makes your mouth water. Imagine that someone gives you a small piece of this cookie or candy and then five minutes later another piece. That would be great, perhaps quite tantalizing. But now imagine that you are given a small piece of the treat every five minutes for the rest of the day, and that the next day when you woke there would be a treat waiting, with again another piece to be eaten every five minutes all through your waking hours. You are not allowed to say, "No, thank you, I've had enough," but are obliged to keep eating. As soon as we move beyond a small, digestible quantity, even a "treat" becomes taxing and will soon make you feel sick.

Now please replace the word *treat* with *sensory impression*, and you get a picture of the vulnerability of the small child's sensory life. Our modern world is full of increasingly noisy, flashing, omnipresent, and continuous media, intentionally and desperately competing for our attention and that of our children. It is easy to see why children today are constantly overwhelmed by their sensory diet.

Older children and adults are very resilient and can compensate for a variety of imbalances or stresses. But a young child, when overtaxed by too much strong sensory experience, will react in one of two ways. He either withdraws and begins to retreat from his environment, or takes in and reacts to everything, becoming hyperstimulated. One of these responses usually predominates, but a child will sometimes alternate between the two.

Withdrawing from the environment means pulling our consciousness back from our senses. When we as adults try to remember something or figure out a difficult problem, we intentionally do this. In a small child, long blinks or "zoning out" are examples of this kind of behavior. The small child's relationship to the world around him has become distanced, less connected. Taken to its extreme, this response can become unhealthy. It is exactly this kind of retreat from the senses that can be observed in some autism-spectrum disorders. An autistic child may not sense social cues or intonation of voice. He may have trouble relating to the environment in an interactive way. If a child's sensory connection with the environment is already inclined to be "numbed," an overwhelming, indigestible sensory diet will reinforce and increase that child's withdrawal from the world. To protect himself, the child retreats even further.

The opposite compensatory response is "openness without borders." The child quickly digests and responds to everything experienced. The child has to work through every experience, talking about it, acting it out physically, encountering it over and over in order to put it to rest. Sensory experiences continue to echo inside the child and manifest in the activities of the autonomic nervous system. Startle responses may be exaggerated; in fact, all responses may become exaggerated. The continuous working through of experiences makes the child agitated and hypersensitive. Rather than being numbed to the outer world, the child responds excessively to every stimulus. The child is easily distracted and may exhibit hyperactive behaviors. "Sensory toxicity" will worsen either extreme.

The small child's open sensory life, however, is not only a time of extreme vulnerability and possible injury. This developmental stage is also a great gift and an opportunity. In the same way that we

Drawing by Risha Rose, a twelfth grader at the Sacramento Waldorf School nurture our children with good food and water, we also need to consciously create and protect the sensory diet of our children. We can thus guide and promote their healthy development.

Children exploring in nature are nourished by what they see, hear, smell, and touch.

There are various ways we can accomplish this guidance and protection. They include:

Eliminate exposure to electronic media

Television shows, computer games, and movies all seek to catch and hold the viewer's attention. They use loud sounds and continuously changing, momentary, powerful images to keep the watcher enthralled and paralyzed in front of the screen. The media's concern is not the healthy neurologic development of the child. The child drowns in sensory experiences, regardless of the content. Children may seem quiet and content when they are watching media, but their senses are really completely overwhelmed. It is hard to think of a less healthful influence on the child's developing senses. When a four-year-old child sees a superhero movie and then plays that superhero nonstop for the next month, it is not because he adores the superhero. It is because the child is desperately trying to digest the ninety minutes of images and sounds that poured into his being without being filtered or digested. It all has to be worked through. It is like giving a six-course gourmet meal to a child who still has no teeth.

Create opportunities for healthful sensory experiences

Such activities should have a rhythmic breathing, should include a time for observation, a space for conscious enjoyment and perception, and then an opportunity to respond. Children do this naturally when they play freely. They also do it when they are learning and imitating a behavior from another child or an adult. There should be space for observation, perception, and then contribution. One might take a small child for a walk in the woods, sit for a while next to a stream, and later talk about the experience. Creating spaces in and around the home that are rich in the elements of nature promotes the child's full experience of the world and her healthy sensory development. [Please see the relevant article on natural play spaces on page 10 of this issue. *–Ed.*]

Consciously schedule time to do *nothing*

During a time with no scheduled activity, a small child doesn't have to take in or respond to her environment unless she wants to. This is not a deprivation. In today's accelerated, overscheduled world, it is actually a gift. At first a child may seem bored, restless, agitated. This usually means she is overly full with unprocessed, retained experiences or hypervigilant in order to protect herself. But then a beautiful thing happens—the child naturally and instinctively does what she needs to do. The child might lie down and nap, or sit quietly and play, or invent a running game. A space in the schedule, without required sensory vigilance, allows her the time to achieve the balance she needs.

This need for a protected sensory experience lasts longer than one might imagine. The direct connection between a sensory experience and an immediate internal physiologic response lasts until at least age seven. The ability to discriminate between healthy and disturbing experiences doesn't really begin until about age nine. Today adults also are

Sometimes it is good to do nothing but sit among the daisies.

Upper photo ©Aliki Sapountzi; lower photo by Julianna Lichatz

A mega-drugstore, with its harsh lighting and overwhelming visual bombardment, is stressful enough for adults, let alone small children.

suffering from daily sensory overload and fatigued senses. One is unlikely to experience this unless one breaks the media habit, seeks out healthful sensory impressions, and allows time for doing nothing.

We need to nourish our children properly. We need to provide them with healthful food and clean water and also wholesome food for the senses to experience. Our children are beautifully open and vulnerable, so we need to give them sights, sounds, textures, and activities that nourish rather than overwhelm, as well as the time, the rhythm, and the quiet they need to digest and assimilate these sensory experiences. Then our children will be able to deeply and completely experience the world with joy and wonder and engage the world with their senses in a salutary way. ☉

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Photo by Ronald E. Koetzsch

Children and Ambient Sensory Pollution

The environment we experience daily in stores, malls, and other public places, at work and on the streets—and even at home—is increasingly noisy. Ubiquitous, loud "background" music, cell phone rings, people yelling into cell phones, automatic car lock noises, roaring motorcycles, all contribute to the cacophony of modern life. This same environment is also visually distracting. Digital billboards that blink and flash and change their message every few seconds, bright fluorescent lights in stores and restaurants, the myriad items in a supermarket, each through its packaging design vying for our attention, all assault our sense of sight.

For adults these harsh sensory stimuli may seem mere annoyances, but in fact they may be much more harmful than we suspect. Loud noises and unexpected visual stimuli are, to the instinctive reptilian part of our brain, signs of danger. They excite, to some degree, our fight-or-flight response with its attendant physiological changes. The effects—long- and short-term, physical and psychological—of the resulting low-level but chronic state of tension and arousal probably are not salubrious.

For the infant and young child, these aural and visual experiences are much more penetrating and influential. As Blanning observes, they enter, unmitigated and unfiltered, into the very physical being of the rapidly developing child. It is prudent, then, to minimize our children's exposure to environments where there are loud noises and taxing visual stimuli. We might well ask ourselves: Do we really need to take our three-year-old to the supermarket and to the mall? And at home, do we really need to listen to our favorite music at nearly full volume?

—R. E. K.