GASTROINTESTINAL HEALTH

AND THE CHILD WITH FEEDING PROBLEMS

Part 1

THE ISSUES

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One of the most critical variables in the success of a feeding program is the level of comfort that the child experiences in the gastrointestinal system. This paper provides a discussion of areas of concern and management alternatives.

The Healthy System

The healthy gastrointestinal system supports the intake, processing, utilization, and output functions of feeding. Like a finely tuned engine, the system discharges the proper amount of enzymes and acids at all levels of the digestive tract to process the food so that nutrients can be released and transported to all cells of the body. The timing of this release and length of time in each part of the digestive system is critical to efficient digestion. Efficient digestion leads to a comfortable relationship with food and eating.

The Child with Feeding Problems

When a child experiences reflux, nausea, vomiting, retching, or pain during or after eating, the relationship to food and mealtimes changes. Many children resist eating or become very picky eaters—systematically refusing the types of food associated with the discomfort. Many children are given small, frequent meals. When the child receives nourishment via a feeding tube, the formula may be given at a slow rate by a feeding pump. Often this occurs over a 12–24 hour period. Transition to oral feedings may be delayed because the child is never hungry and never full. These body signals regulate food intake internally and are necessary for self-regulation and even the desire to eat. The following areas should be investigated by therapists and parents in their development of a feeding program.

THE ISSUES

Gastrointestinal comfort and experience strongly influence the child's relationship to food and the development of oral feeding desires and skills.

If personal associations with tube feeding or oral feeding are connected with nausea, pain, or discomfort, there will be a lack of desire to eat, or to eat appropriate quantities of food.

Some children respond with greater negativity to this association than others. There appears to be an interaction with temperament and with sensory processing and integration abilities. A child who is overly sensitive to the environment or is easily angered, may withdraw from or lash out at eating-comfort connections more than the more easy-going child.

Children with sensory integration difficulties—particularly those with sensory defensiveness—will experience the gastrointestinal discomfort with greater inner distress. Many of these children appear to have an enhanced "sensory memory" of esophagitis, reflux, or general discomfort even after the problem has been resolved. Because the memory association of food and discomfort is strong, some children may continue to fear that making the commitment to eat by mouth will result in discomfort. "Just say 'no'" appears to be their general motto.

If the child's gastrointestinal symptoms are not externalized through vomiting, adults may be unaware that problems exist. The child who experiences nausea or gastroesophageal reflux without vomiting becomes particularly vulnerable to being misunderstood. The child knows internally that there is a reason for refusing to eat, and feels misunderstood when adults continue to push food and liquid. The adult feeder becomes concerned, scared, and often angry when the child won't eat but doesn't seem to have an understandable reason for avoiding food.

External agendas related to attention and power become superimposed on top of the underlying picture of discomfort. The child looses sight of internal cues of hunger and satiation, and shifts the focus of attention to engaging in emotional dialogues with parents. The child may establish a sense of value or importance in the image of "the kid who won't eat," or the kid who is powerful because "you can't make me eat!".

A child's responses to tube feeding set the physical and emotional stage for responses to oral feedings. Most children cannot control food intake when it comes through a tube. Physical expressions of discomfort may be explored by shifting from bolus feedings to continuous drip feedings or extended, slow pump feedings. However, it is the adult who sets the rate and the amount of food going into the child's stomach. Children discover very quickly that they are in the driver's seat for oral feedings. They control the opening and closing of the mouth, the movement of food backward or forward in the mouth, and the swallowing of the food. If tube feedings have been unpleasant, many children assume that oral feedings will be similarly unpleasant and uncomfortable. Since they now have the control, many children will resist oral feedings solely on the basis of their experience with tube feedings. If foods or liquids that actually cause discomfort are inadvertently introduced by mouth, the child's beliefs that this is a dangerous activity are confirmed.

Tube feedings can contribute to a lack of desire for oral feedings. This occurs, in part, because tube feedings reduce the body's opportunity to develop basic gastrointestinal experiences that support oral feeding.

When a child is placed on tube feedings, a single formula generally is recommended. The orally fed infant and young child experiences nutritional diversity through different grains, fruits, and vegetables. In contrast, the child with severe feeding problems may remain on the same nutritional formula for years. The gastrointestinal system and the body as a whole are not given the opportunity to develop an ability to adjust to small and large differences in food intake. When food is introduced orally, the child has had no general body experience of diversity upon which to build.

The continuous intake of a single food (or formula) can result in food allergies, sensitivities, or intolerances to the tube-feeding formula (Rapp 1991). This is particularly likely in children who have a family history of hay fever, asthma, chemical allergies or food allergies. Symptoms may occur in all body systems and may cause or worsen gastrointestinal (nausea, gas, cramps, reflux), respiratory (congestion, mucous production, coughing), neurological (muscle tone, spasms, reflexive patterns, hypersensitivity), and psychological (attention, emotions, cognitive) symptoms.

When a child's digestive system rebels against bolus tube feedings, formula intake may be spread out over a longer period of time. A pump is used to deliver the formula at a specific rate over a designated time block. Many children are on pump (drip) feedings all night, allowing a larger block of time for hunger to develop during the day. Others receive tube feedings both night and day. Still others receive a slow pump feeding nearly 24 hours a day. As long as slow tube feedings are part of a child's diet, there are few opportunities to develop the hunger-satiation patterns that support an oral-feeding diet. Most of these children are never hungry and never full. Even when they experience hunger signals, they do not interpret them as a need to eat, since food arrives most of the time unrelated to physiological signals.

When parents or therapists withhold or reduce tube feedings for several days (hoping that the child will be internally motivated to eat more by mouth), there is often no difference in oral intake. In most cases, the child simply doesn't realize that something is missing, since he has been physically unaware of what it means to be hungry. Action follows awareness and a perception of need.

Appetite and hunger also follow specific rhythms that are set by the culture. Children in our culture typically receive three large meals (breakfast, lunch, and dinner) and two small meals (morning and afternoon snacks). Food arrives in fairly similar time periods and amounts. The body becomes aware of this pattern and adjusts anticipation of hunger awareness and expectation of eating according to these patterns. When tube feedings are not associated with a consistent pattern and volume, the child fails to develop the rhythms of appetite and appetite regulation that increase interest in food and eating.

When a child has experienced discomfort with a larger intake of food or formula, awareness builds for the physiological signals that are associated with that discomfort. The sensation of hunger may be similar to the sensation of mild nausea. The sensation of an expanding stomach and fullness may be similar to the sensations of gas, bloating, and reflux vomiting. When children experience these noxious gastrointestinal stimuli, they may misinterpret the signals of hunger and fullness, anticipating that these physiological cues predict that severe discomfort will follow. They refuse to eat or stop eating in order to take care of their anticipation of future discomfort.

Medical and dietary professionals claim that formulas provide the child with all of the nutrients needed for health and growth. Many parents are advised not to give their children additional vitamin, mineral, or food supplements because the formulas provide "complete nutrition." This assumption, however, raises many questions.

Tube feeding formulas are heavily processed foods. They are augmented by a long list of chemical nutrients in order to mimic the known vitamin, mineral, fat, protein, and carbohydrate components in natural foods. Significant research has been published in major medical journals showing the effect of natural plant chemicals—known as phytochemicals—on health and disease prevention. Phytochemicals are produced by the plant as it ripens to protect it from the sun's rays, insects, etc. There are hundreds of these phytochemicals in the fruits and vegetables we eat, and their full impact on the human body is not known. Research has shown that phytochemicals repair cells, have antibiotic and antiviral functions, help regulate hormones and enzymes, and enhance immune system function. When our diet is made up of processed foods and does not include these phytochemical helpers, long-term health may be compromised.

Individual needs for known vitamins and minerals are also ignored in the pre-packaged formula concept. Like the widely published RDA (recommended daily allowance) for vitamins and minerals, the assumption is made that age and / or weight determines the caloric and nutritional needs of the child (unless the child has been diagnosed with a condition or takes medication that is associated with higher nutrient needs). Stress, chronic illness, and frequent antibiotic use are examples of common conditions in children who are on tube feedings. Each of these conditions is associated with greater needs for specific vitamins or minerals (Murray 1996).

Another assumption underlying formula-nutritional decisions is that if children are not sick, their nutritional needs are being met. A reluctance to look at individualized nutrient needs and provide vitamin, mineral, or food supplements is justified by this assumption. Even if a child is frequently ill, nutritional reasons may not be examined. The reason for the illness is justified by the diagnosis. For example, "Children who are premature are more prone to picking up bugs. He'll outgrow it"; or "She has a cleft palate, and children with cleft palates get more ear infections than other kids." Yet, not all children who are premature or have cleft palates become ill. Why does this child become ill, and another child does not?

It is commonly believed that the body requires a specific level of liquid intake—rather than a specific level of water intake—for health and well being (Batmangheilidj 1995). Since children on feeding tubes receive their entire nutrition in liquid form, it often is assumed that they do not need additional water (other than that used to flush the tube). It is also assumed that water will fill them up and reduce their desire and tolerance for the formula. Thus, fear of reduced caloric intake also contributes to the failure to give needed water. Formula is a food— which like most milks, fruits, and vegetables—has a high percentage of water. However, this does not replace the body's cellular need for clear water to provide optimum function of all cells and systems. The digestive system is heavily dependent upon water for efficient function. The chronic "subclinical" dehydration experienced by children and adults who lack adequate water intake, can contribute to reflux and other gastrointestinal problems (Batmangheilidj 1995). A child should receive water intake equivalent to two-thirds of the body weight. Thus, a child weighing 30 lbs. should be given 20 ounces of water throughout the day (Batmangheilidj 1996). No physician would advise the parents of a typically developing child to drink only milk and juice. Water is recommended for all children and adults.

Many professionals place greater emphasis on the child's caloric intake than on the balance of nutrients, metabolism and assimilation of the food that the child eats. Lack of weight gain and growth can occur for many reasons other than inadequate calories.

Introducing food to the gastrointestinal system is the first part of a complex sequence. Digestive enzymes, mixture of food with water and gastric acids, gastric emptying time, pH levels in different regions of the gastrointestnal system, contributions of friendly bacteria in the intestinal tract, and peristalsis through the gut all contribute to the digestive process. If one or more of these processes is inefficient, the body's ability to digest and assimilate the food for growth will be compromised.

Stress interferes with digestion. Stressors trigger a fight-or-flight sequence that pours adrenaline from the adrenal glands into the blood stream. The body prepares to defend itself. Blood is directed toward the muscles of the extremities and away from the digestive system. Digestion slows down, and becomes incomplete or inefficient. When stress is chronic, the digestive system is unable to operate at peak efficiency.

There are many stressors in the lives of children with feeding problems. Young children are asked to adapt to many unfamiliar adults in health care, education, and rehabilitation. Frequent hospitalizations for illness and surgery may be part of the child's life. Medications create added stresses by creating side-effects and imbalances in bodily systems as they are directed at specific problems or diagnoses. Children who experience a noxious, defensiveness response to environmental sensations (such as touch, movement, sound, light) are constantly triggering the fight-or-flight reaction and accompanying stress (Wilbarger and Wilbarger 1991).

In addition, feeding itself can be stressful. Physical tension may interfere with the child's ability to move the mouth efficiently or coordinate breathing with sucking and swallowing. Anxiety and fear of choking are part of the mealtime experience for many children. Tastes and textures may trigger strong responses of oral sensory defensiveness and high levels of stress. Children are usually very sensitive to the moods and emotions of their parents and of the persons who feed them. When the feeder is anxious because the child is not eating, this anxiety is shared by the child. If the child feels she is being pushed or forced to eat, she may respond with strong emotions that reduce digestive comfort for eating. Children whose lives are stressed, may not utilize food nutrients adequately for growth. The body may require a larger amount of specific nutrients or may inadequately metabolize nutrients — resulting in poor growth. This can occur when the digestive system is compromised by lack of specific digestive enzymes (Howell 1985), allergy (Rapp 1991), or increased intestinal permeability (Chaitow and Trenev 1990).

A genetic lack of the enzyme that digests milk sugar (lactase) can lead to gastrointestinal discomfort as well as to a deficiency in calcium. Allergy or intolerance to food that is part of the diet can result in poor utilization of nutrients that the food should provide. Stress, antibiotics, and other factors that reduce the population of friendly bacteria in the intestinal tract, can result in an overgrowth of the yeast, *candida albicans*. With candida overgrowth, the intestinal tract can become more permeable. (Chaitow and Trenev 1990). With increased permeability or "leaky gut," small perforations in the intestinal wall allow partially digested food molecules and toxins to leak into the blood stream. The immune system may greet these invaders by greater activity and the creation of antibodies. These antibodies are brought forth to protect against further invasions of this food (or foods), resulting in increased sensitivity or allergy to a wide variety of foods that are part of the diet.

Lack of appetite has many roots.

Children who receive slow drip/pump feedings have no opportunity to develop hunger or the awareness of appetite. Food arrives and departs very slowly and the walls of the stomach never stretch and contract as they do in the individual who receives large amounts of food or liquid at one time.

Many children have a delayed gastric emptying time. Food stays in the stomach for hours and does not pass readily into the intestines. A typical meal should be completely out of the stomach within 2 hours. Where emptying time is delayed, the last meal may still be in the stomach 3 or 4 hours later. Adults assume that the child is hungry because of the passage of time. However, there is no hunger because the stomach is still full.

Constipation occurs when food residues are not propelled efficiently through the intestines and colon. Waste materials can back up in the tract, giving a feeling of fullness and generalized discomfort. As the body wastes remain in the digestive tract, toxins from putrefying food, dying bacteria, etc. can contribute to mild nausea, feelings of malaise, and a general lack of interest in eating. This lack of motility may occur because food is not adequately digested and also when there is inadequate water in the digestive tract and cellular tissues.

Some children have a very low awareness of sensory input. Many of these children with low arousal have a low awareness of hunger signals. Other children may be highly distracted by the environment or their self-protective power contest with parents that they simply don't notice the low-level, low-priority sensory input of hunger.

Children who have experienced gastrointestinal distress may interpret hunger signals as nausea or pain. No internal association develops between the physiological signals of hunger followed by relief, comfort, and pleasure. When the sensation of a filling stomach has been associated with nausea, reflux, or vomiting, the child may tune into these sensory signals and refuse to eat more as soon as "filling cues" are perceived.

Some medications given for hyperactivity or seizures have a side-effect of reduced appetite or anorexia. These include Ritalin, Prozac, Depakote, and Klonopin, Other medications for muscle relaxation, seizures and gastroesophageal reflux have the side-effects of nausea or vomiting. These include Valium, Baclofen, Dilantin, Depakote, Klonopin, Tegretol, and Zantac. Still others affect the gastrointestinal tract through constipation. These include Baclofen, Depakote, Klonopin, Tegretol, Dilantin, and Valium. Children who are experiencing side effects from their medications may be disinterested in eating ,or actively avoid food because of the associated discomfort.

Antibiotics have a strong negative impact on the gastrointestinal system. This can contribute to negative feeding experiences.

Antibiotics are prescribed frequently for children with developmental disabilities. This is a reflection of the high use of antibiotics in general medical practice. However many articles in medical textbooks and peer review journals support the view that antibiotics are over-prescribed (Schmidt et al 1993). One study indicated that 40–60% of all antibiotics in this country are misprescribed. For example, 51% of patients seeing doctors for the common cold (a viral infection) were given an antibiotic.

There is a high probability that the increasing incidence of otitis media (ear infections) in children is related to the routine use of antibiotics prescribed (Schmidt et al 1993). Recurrence rates of middle ear fluid and infections in one study were significantly higher in a group of children treated with antibiotics than in a placebo group. When children received amoxicillin for chronic otitis media they were 2–6 times more likely to get another ear infection.

Many children who receive multiple courses of antibiotics for repeated otitis media do not have a bacterial infection. They develop fluid in the middle ear and pain as a result of chronic closure of the Eustachian tube and a generalized swelling and inflammation related to an allergy to milk. When dairy products are removed from their diet, the ear infections stop (Schmidt 1990).

Antibiotics can save lives when given for a severe bacterial infection. However, their overuse has resulted in the development of strains of bacteria that are highly resistant to all or most antibiotics, and the massive destruction of the friendly bacteria in the intestines.

The intestinal tract is colonized shortly after birth by billions of bacteria that live in a cooperative relationship with the body (Chaitow and Trenev 1990). Over 400 species of these friendly bacteria assist with digestion and health. A wide variety of contributions are made by these bacteria. Some of them manufacture B-vitamins such as biotin, niacin, pyridoxine, and folic acid. Others provide the enzyme lactase which allows for the digestion of milk-based foods and calcium for people who cannot digest milk. When they are present in yogurt or cultured milk, they enhance protein digestion and absorption. Some of the bacteria are anti-carcinogens, protecting the body from developing the tumors of cancer. Others have antibiotic properties by altering the acidity of the gut so that harmful bacteria cannot survive, or by actively producing antibiotic substances. They control potentially harmful yeasts such as *candida albicans*. They enhance bowel function by increasing peristalsis and reducing the amount of time needed for food to pass through the gastrointestinal system. They play a vital role in the development of a healthy gastrointestinal tract in infants.

Lactobacilli are the major bacterial residents of the gastrointestinal tract—especially the small intestine (Chaitow and Trenev 1990). They withstand a high degree of acidity and actually manufacture acid themselves. Because of their acid-resistance they can colonize areas of the gut that are hostile to other bacteria. Examples of lactobacilli are *Bifidobacteria, Lactobacillus acidophilus, Lactobacillus bulgaricus, and Lactobacillus casei:*

Bifidobacteria are the main friendly bacteria in the large intestine (Chaitow and Trenev 1990). These include bacteria such as *B.infantis, B.bifidum, B.longum, and B.adolescentis.* Bifidobacteria are particularly prevalent in breast-fed infants who may have up to 99% of their total bacterial count as bifidobacteria. Bifidobacteria help the body retain nitrogen which helps infants gain weight. These bacteria also help the

child grow by increasing the absorption of calcium. The proportion of these bacteria in the system gradually decline with age.

The balance of friendly intestinal flora in the gastrointestinal tract can be altered by antibiotics, low levels of hydrochloric acid in the digestive juices, and stress (Chaitow and Trenev 1990, Schmidt et al 1993). Anything that changes the degree of acidity in the gut, changes the habitat for these bacteria. This changes the type and number of the microorganisms—typically killing large numbers of these friendly intestinal residents and allowing for an overgrowth of unfriendly bacteria and yeasts. These three factors—antibiotics, reduced hydrochloric acid, and stress—are often chronic companions for the child with a feeding disorder.

Medications that alter the pH by reducing stomach acidity are commonly given if the child has gastroesophageal reflux. These include antacids as well as medications such as H-2 blockers (i.e.Zantac, Tagamet), and proton pump inhibitors (i.e. Prevacid) which reduce the amount of hydrochloric acid secreted by the stomach. These negatively influence the survival of friendly bacteria that require an acidic environment.

Antibiotics kill bacteria contributing to illness; however, most of them kill the friendly bacteria as well. This is particularly true of broad spectrum antibiotics that are not targeted at a specific bacteria group. When children are chronically ill or have reduced immune function, they often are given medications such as Bactrim or Ceclor—both broad spectrum antibiotics—over a long period to prevent further illness.

The most serious gastrointestinal consequence from the use of antibiotics is the uncontrolled growth of the *candida albicans* yeast (Schmidt et al 1993; Trowbridge and Walker 1986). Candida is present in every gastrointestinal tract to some degree. It is kept in balance and is prevented from colonizing in the wall of the intestine by the friendly bacteria. When these bacteria are wiped out by antibiotics, rampant candida growth occurs. The friendly bacteria produce biotin (a B-vitamin) which also controls the growth and shape of the yeast. *Candida albicans* can take two forms—the first is that of a yeast. In the yeast form, candida grows slowly and does not implant itself in the intestinal wall. When the friendly bacteria are absent or reduced, candida albicans transforms into it's secondary form—a fungus. This transformation occurs, in part because of a biotin deficiency.

The distinction between these two states is very important. "The yeast-like state [of candida] is a non-invasive, sugar-fermenting organism, whereas the fungal form produces rhizoids, or very long root-like structures, which can penetrate the mucosa, and it is invasive. Penetration of the gastrointestinal mucosa breaks down the boundary between the intestinal tract and the rest of the circulation allowing introduction into the bloodstream of many substances which are antigenic (i.e. stimulate the immune system to defend itself, possibly resulting in allergic reactions)."(Chaitow and Trenev 1990; p 87)

Thus, the overgrowth of candida can contribute to allergies, vitamin deficiencies, and a wide array of local and systemic symptoms that affect a child's physical and emotional comfort.

Lack of adequate water can affect the function of all systems of the body—especially the gastrointestinal system, which needs water for digestion.

The optimum amount of water varies with the age-range and weight of the person. Infants who are on a total formula or breast milk diet do not need additional water in their diet. If small amounts are added, great care should be taken and a pinch of salt should be added to the water. If too much water is given or the child's formula is diluted with water, the body can release too much sodium in the urine, leading to seizures and brain damage. Children need the number of ounces equivalent to two-thirds of their body weight (Batmangheilidj 1996). A child weighing 36 lbs. needs 24 ounces of water. When children reach the age of 10–12 years, their water needs approach that of adults. They need the number of ounces equivalent to half of their body weight (i.e. a child weighing 60 lbs. needs 30 ounces of water). It is commonly stated that adults need a minimum of 6–8 eight-ounce glasses of water per day. Juice, milk, tea, and soda do not count toward the daily allotment of water. The body needs clear fluid that is not a food requiring digestion (Batmangheilidj 1995, Iqbal 1990).

Thirst signals are often unclear to children and adults who are chronically dehydrated. A dry mouth is often the last signal of thirst. A body can suffer from dehydration even though the mouth is moist. Gastrointestinal pain and discomfort can be a major signal that the body is not getting enough water (Batmangheilidj 1995).

In his book, *Your Body's Many Cries for Water*, F. Batmanghelidj, MD makes a strong case for gastroesophageal reflux (heartburn) as a symptom of inadequate water intake. Copious amounts of water are needed in the stomach for digestion. When we drink a glass of water, it rapidly passes through the

stomach and is absorbed in the intestine. 30 minutes later the stomach secretes the same amount of water through the glandular layer in the mucosa. The water in the stomach is now ready to mix with stomach acids and enzymes and assist with digestion.

The cells in the small intestine would be damaged by acid from the stomach if the pancreas did not secrete a watery bicarbonate solution that changes the environment to a strongly alkaline solution. Once the bicarbonate solution has been released, the pyloric valve opens to allow stomach contents to pass into the small intestine. These acid contents are then neutralized by the alkaline solution secreted by the pancreas. The manufacturing of the watery bicarbonate solution requires a great deal of water from the body's circulation. When inadequate water is present due to chronic dehydration there is often inadequate production and release of the bicarbonate solution. The pyloric valve does not receive the signals to open and release the stomach's acidic contents into the intestines. This is a self-protective response since the walls of the intestines lack the protective layer against acid that is present in the stomach. The pyloric valve constricts more tightly and the lower esophageal sphincter relaxes. This results in the "anti-peristalsis" that reverses the contractions and sends stomach contents upward into the esophagus (Batmangheilidj 1995, p. 37-38)

One of the functions of the neurotransmitter histamine is regulation of water distribution to the cells (Batmangheilidj 1990, Batmangheilidj 1995). When there is inadequate water for all of the cells, the brain secretes more histamine. Histamine redistributes more water to areas such as the brain whose cells have a high need for hydration, drawing water from cells that have a less critical need. The greater the body's need for water, the more histamine it secretes to try to solve the problem.

Increased production of histamine is one of the major problems in asthma and allergy. This is the reason that the most common medications for these problems are anti-histamines. Salt is also a natural antihistamine which can be added to the diet in small amounts to prevent excess histamine production. Sodium (salt) regulates the amount of water that is held outside the cell wall. Through a special filtration system, water can be directed into the cell itself. When we don't drink enough water, the body will retain sodium, so that additional water isn't lost. Giving diuretics for water retention, just makes dehydration worse. Water itself is an excellent natural diuretic when the body is getting enough.

Problems with thick mucous in the body are also related to chronic dehydration. Batmangheilidj states that "Sodium is a natural mucus breaker, and it is normally secreted to make mucus disposable. That is why phlegm is salty when it comes in contact with the tongue . . . Salt is needed to break up the mucus in the lungs and render it water for its expulsion from the airways." When there is chronic dehydration, the body doesn't want to give up salt to loosen the mucous (Batmangheilidj 1995, p 120).

Constipation is also related directly to inadequate water intake. "One of the main functions of the large intestine is the process of taking water out of the excrements so that too much of it is not lost in the waste matter after food digestion. When there is dehydration, the residue is naturally devoid of the normal amount of water necessary for its easier passage. Also, by slowing down the flow and further squeezing the content, even the final drops of water will be drawn away from the solid residue in the large gut. Thus, constipation will become a complication of dehydration in the body." (Batmangheilidj 1995, p 34).

Reflux, thick mucous, and constipation are major issues for children with feeding problems. Is it possible to eliminate these problems, by something as simple as increasing their water intake?

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