

GOOD GOOD GOOD



Hydration[©]

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Defeating the Dehydration of Chronic Digestive Disease

You've seen the commercial of the man trapped in the carpool with his friends – and with diarrhea. At one time, we've all been in this nightmarish situation. But for some people, upset stomachs, diarrhea and abdominal pain are more than occasional embarrassments.

For 60 million Americans, digestive disease is a fact of everyday life. Healthcare costs to treat these diseases total more than \$45 billion a year for hospitalizations, surgeries, IV hydration and medications. Amazingly, digestive diseases account for 13 percent of all hospital admissions, and, tragically, an estimated 200,000 deaths annually.

What are these diseases and why are they so serious? Inflammatory Bowel Disease (IBD) is a group of chronic gastrointestinal disorders that cause inflammation or ulceration in the small and large intestines. Crohn's disease and ulcerative colitis are the most common IBDs. Short bowel syndrome, such as from surgical procedures (ileostomy or colostomy), means the bowel has been shortened and foods and fluids flow through much faster, with absorption often a problem.

What they all have in common are diarrhea and the resulting, potentially serious and even life-



threatening side effects of dehydration. When the human body loses fluids, valuable salts and nutrients, the results can be deadly.

ORS Eliminates Need for IV Hydration

According to **Dr. Alan Buchman, Division of Gastroenterology at Northwestern University School of Medicine**, "There are basically only three reasons patients get admitted to the hospital for treatment of IBD - surgery, blood transfusion, and IV hydration. One of those can be eliminated by the use of oral rehydration solutions (ORS). Adult gastroenterologists and surgeons need to learn from our pediatric colleagues' experience (with ORS)."

Here is a summary of the various IBDs and how CeraLyte can resolve the dehydration caused by them.

Crohn's Disease

With Crohn's disease, painful ulcers develop in one or more sections, or all along the length of the gastrointestinal lining. Thick scar tissue forms when the ulcers heal, causing poor assimilation of nutrients and adversely affecting elimination as scar tissue narrows and hardens in the digestive tract.

Evidence suggests that Crohn's patients have abnormalities of the immune system, but doctors do not know whether immune problems are a cause or a result of the disease. Abdominal pain and diarrhea are the most common symptoms of Crohn's disease. Rectal bleeding, weight loss, and fever may also result. Persistent bleed-

Disease, continued on page 2...

Disease, continued...
ing may lead to anemia. Children who get the disease may become developmentally delayed and suffer stunted growth. CeraLyte ORS is often helpful in controlling the fluid losses and dehydration that is common in Crohn's disease.

Ulcerative Colitis

Ulcerative colitis, also called colitis, ileitis, or proctitis, causes inflammation and ulcers in the top layers of the lining of the large intestine. It usually occurs in the rectum and lower part of the colon, but may affect the entire colon. The inflammation makes the colon empty frequently, causing diarrhea. Ulcers form in places where colon-lining cells have died; the ulcers bleed, producing pus and mucus.

Ulcerative colitis occurs most often in people ages 15 to 40. The most common symptoms are abdominal pain and bloody diarrhea. Patients may experience fatigue, weight loss, loss of appetite, rectal bleeding, and loss of body fluids and nutrients. Most people are treated with medication. In severe cases, the diseased colon may be surgically removed.

Short Bowel Syndrome (SBS)

Short bowel syndrome is a group of problems affecting people who have had half or more of their small intestine removed, usually due to Crohn's disease.

Diarrhea is the main symptom, but other symptoms include cramping, bloating and heartburn. Many people suffer from malnutrition because their remaining small intestine is unable to absorb enough water, vitamins and other nutrients. They may also become dehydrated, which can be life threatening. Other side effects are weakness, fatigue, depression, weight loss, bacterial infections and food sensitivities.

SBS is treated through changes in diet, intravenous feeding, vitamin and mineral supplements, and medicine to relieve symptoms.

Ileostomy/colostomy

Sometimes treatment for Crohn's disease, ulcerative colitis or polyps requires removing all or part of the intestines. The surgeon then performs an

ostomy to create an opening in the abdomen, called a stoma, for stool to pass through.

When the colon and rectum are removed, the bottom of the small intestine (ileum) is attached to the stoma. When the rectum is removed, the surgeon performs a colostomy to attach the colon to the stoma.

Max's Story...

A Happy Ending for a Boy Born with Short Gut

Max Cioppa, age five, "had feeding issues from the very beginning of his life," according to his mom. He was born with just half an intestine and spent his first eight months hospitalized while living on Total Parenteral Nutrition or TPN.

Miraculously, his mother Patricia took Max home and adapted him to real food. Life became pretty normal for the little boy, who even enjoyed 'Happy Meals.' But at age two, he developed acidosis, a disturbance in the body's acid-base balance.

His acidosis became increasingly worse, followed by hospitalizations and more TPN. "In minutes, he'd go from fine to limp. We couldn't wake him up," recalls his mom. "It was frightening to see him in a catatonic state. His doctors checked for diabetes, neurologic problems, endocrine, everything. No one could find an exact reason for why he'd get acidotic."

The Cioppas were getting desperate. In addition, the hospitalizations were scaring Max and the TPN was painful. "We said, 'We've got to find something to keep Max out of the hospital,'" recalls Pat. "My husband did research about oral rehydration solution (ORS). We started to make it ourselves from rice and sugar. It worked."



But Pat was convinced that there must be someone in the U.S. who manufactures and packages high quality ORS. Through the Internet, her husband discovered CeraLyte.

"Max has not been acidotic in two years now," says Pat. "It's been fabulous. Not one single doctor could tell us, 'This is what Max has and this is what we can do to fix it.' Who knew that we could fix what Max has with a little packet that you mix in water!"

"Max drinks CeraLyte every day. We make a liter daily. He'll drink it plain. He just sips it all day," says his mom. He is now a happy child who plays with his friends and likes school. He can even eat Happy Meals again.

Since Max qualifies as a chronically ill child to receive Medicaid through the state of Arizona, Pat has been able to arrange for Medicaid to pay for his CeraLyte. ■

Dehydration

Dehydration from diarrhea is a serious problem for people with chronic digestive conditions. When fluid leaves the body's cells, it needs to be replaced to restore both composition and volume. Plain water, tea, soda and juice are not effective because they do not contain the electrolytes the body needs. Sweet drinks can actually increase fluid loss.

Oral Rehydration Solution (ORS) has been endorsed as the best rehydration method. According to the famous British medical journal, *The Lancet*, ORS is the "miracle solution of this century" because it is effective, simple, low-cost and can prevent serious consequences and even death due to dehydration. The World Health Organization has declared ORS the recommended treatment for any kind of diarrhea worldwide. When used at the onset of the diarrhea episode, ORS can prevent dehydration.

Rice-based oral electrolyte rehydration solutions are recognized as the most effective type of ORS. They enhanced absorption for rapid restoration of fluid volume and cell balance, thereby promoting



early recovery of intestinal function. Compared with glucose (and any fluid), rice-based solutions reduce fluid losses by 20 to 30 percent, shorten diarrhea episodes by about one day and promote quicker recovery.

CeraLyte® to the rescue

CeraLyte, a rice-based ORS that meets World Health Organization standards, has been proven to be the ideal ORS to treat dehydration from diarrhea. It helps people with digestive diseases, who suffer dehydration regularly.

Developed by Cera Products, along with physicians from **Johns Hopkins University School of Medicine**, CeraLyte is available as a powder that can be reconstituted with water. It comes in several flavors, three sodium strengths (50mEq/L, 70mEq/L, 90mEq/L) and two packet sizes (single or 1L pitcher size serving). The powder is versatile; it can be stirred into clean drinking water, either hot or cold.

CeraLyte's patented formula works both fast and sustained, i.e., more efficiently, than glucose-based solutions. Because of its low osmolality, it delivers water and nutrients more efficiently. Overall, the product's sustained absorption helps shorten the length of the illness and promotes early recovery in infectious diarrhea and helps those with chronic diarrhea better manage their conditions.

According to **Dr. David Sack**, *Professor of Infectious Diseases at the Johns Hopkins University School of Public Health and Hygiene*, "CeraLyte is the best of the products with which we are familiar...It works better, and people like CeraLyte because it tastes better."

"From the reports of gastroenterologists at the Mayo Clinic, patients who received CeraLyte for the treatment of Crohn's and short bowel syndrome were able to maintain hydration status and do not need further hospitalization," he adds.

Dr. William B. Greenough, *Professor of Medicine at the Johns Hopkins University Geriatrics Center*, explains, "Evidence shows that using a food-based formula increases the recovery rate from IBD, or other conditions, such as dysentery. CeraLyte can help avoid the need for IV therapy, while preventing dehydration and unnecessary hospitalization."

Greenough relates the story of the father of another physician: "An elderly man in his eighties, this patient had been hospitalized six times in three months because his colostomy and ileostomy were causing large amounts of fluid loss. After CeraLyte, the patient was able to stay out of the hospital for the remainder of his life."

Not only can CeraLyte can help rescue people from occasional awkward moments when diarrhea hits, it can restore quality of life for people with chronic digestive diseases, who struggle with frequent bouts of diarrhea and dehydration. ■

Charities That Help People with Chronic Diarrhea

The Oley Foundation

214 Hun Memorial, MC-28
Albany Medical Center
Albany, NY 12208-3478

800.776.OLEY - toll free in US and Canada
518.262.5079 - calls from Europe and elsewhere
518.262.5528 - fax

www.oley.org • info@oley.org

Crohn's & Colitis Foundation of America

386 Park Avenue South
17th Floor
New York, NY 10016
800.932.2423

www.ccfca.org • info@ccfca.org

National Dysautonomia Foundation

CeraLyte Used for Children's Seizures

A mysterious genetic disease called familial dysautonomia (FD) is a disorder of the autonomic and sensory nervous systems. It is estimated that close to 400 children world-wide may have the disease.

Numerous symptoms include seizures, developmental delays, inability to shed tears or feel pain, hot or cold, feeding problems and huge fluctuations in blood pressure.

An amazing family in Florida with three children who suffer from FD participated in a study to demonstrate how CeraLyte changed the children's lives for the good.

The children's seizures, which often occurred multiple times daily, went away and their EEGs normal-

ized. The study was published in *Epilepsia* 2004 by **Dr. Juan G. Ochoa, Clinical Assistant Professor, University of Florida, Neuroscience Institute.**

Prior to receiving CeraLyte, Sandra Mallow, their mother, describes, "the children would faint, they would be very tired and had what looked like absence seizures. They would get diarrhea often ...and did not seem to digest their food well."

A **University of Florida** cardiologist who specializes in electrophysiology recommended CeraLyte. "It not only helped the children's chronic upset stomachs, but also helped them stop the seizures. They are off all seizure drugs," says Sandra.

Though FD is rare, the way Cer-

aLyte helps individuals with this condition may show the way to help people with other conditions. For example, people with volume depletion may find CeraLyte can help them manage their symptoms better. Some conditions with volume depletion may not be accompanied by diarrhea and might include post-orthostatic tachycardia syndrome (POTS), chronic fatigue syndrome, and neurally-mediated hypotension. One relieved mother in an international support group of FD families says, "Our children seem more stable on CeraLyte, they are not having as many weak spells caused by blood pressure drops, my son included." ■

The Lyte at the End of the Tunnel

Crohn's Patient Has Her Life Back

Terry Carter-Letchworth was having such a bad bout of Crohn's disease that her doctors at the **Mayo Clinic** were considering a last resort; hooking her up to a permanent, portable IV pack that would deliver electrolytes through a pump. But, just a few weeks before, her gastroenterologist **Dr. Darlene Kelly**, attended a medical conference where she picked up something new – oral rehydration packets of CeraLyte. Dr. Kelly suggested to Terry that she try CeraLyte before they resorted to the IV pack.

"It was unbelievable timing," says Terry, who suffered from such debilitating Crohn's that she lost her breath, couldn't keep food down, and couldn't go out places for fear of a Crohn's attack.

That was ten years ago, and since that time forward, Terry has had her life back. "CeraLyte is really a wonder! You have no idea how

grateful I am," says Terry, an artist and avid gardener in Minnesota, who can now enjoy family gatherings with her nieces and nephews.

Terry drinks one to two liters a day of CeraLyte 90, "plus a lot of water," she says. The attacks of Crohn's, which Terry says, "would make my hands go numb and tingly, and affect my nerves, memory, and thinking" are now a thing of the past. "I have a nice life now," she declares.

Dr. Kelly has successfully treated many patients with CeraLyte over several years. "Oral rehydration solution represents the clinical application of some of the most basic concepts of cellular physiology," wrote Dr. Kelly in the journal *Practical Gastroenterology*, October 2004. "It offers a therapy that is simple and inexpensive with very few potential complications...Yet, this life-saving therapy has been slow to be accepted by Western medicine." ■



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