

## **Scientific explanation how the Karlovy Vary Healing Mineral Water may help people with pancreatic disorders.**

By Peter Melamed, LAc, PHD

The pancreas is an elongated and tapered gland that lies across the back of the abdomen behind the stomach in the loop of the duodenum. It secretes digestive enzymes into the duodenum and hormones, such as insulin, into the blood stream.

Digestive enzymes are released from the cells of the pancreas into a network of ducts, including the pancreatic duct. The pancreatic duct joins the common bile duct at the Sphincter (valve) of Oddi, where both ducts flow into the duodenum. This is why all inflammation or difficulties with bile elimination influence pancreatic functioning.

The enzymes secreted by the pancreas aid in digesting proteins, carbohydrates, and fats. Most of these enzymes are secreted in inactive form and are activated in the duodenum. The pancreas also secretes large amounts of sodium bicarbonate, which protects the duodenum by neutralizing the acid that comes from the stomach.

Abundant digestive enzyme production and elimination are crucial for maintaining optimal health. Our diets are composed of protein, fats, carbohydrates, sugars, and fiber. We need the appropriate enzymes (protease, lipase, amylase, and cellulase) for digestion. The enzymes break down the foods we consume into particles small enough to pass through the intestinal wall and be absorbed by the cells.

Within the cells, the molecules of food are converted into usable energy. If the Pancreas diminishes digestive enzyme production, none of the food we eat can be properly absorbed and assimilated by the body. A full plate does not always translate into a healthy body and vital life, particularly if adequate pancreatic enzymes are lacking.

Pancreatic enzymes serve several other important functions. For example, the proteases are largely responsible for keeping the small intestine free from parasites, including bacteria, yeast, protozoa, and intestinal worms (1). Pancreatic enzymes also facilitate recovery from tissue damage, injury, and inflammation. They are essential in breaking up inflammation caused by trauma, infections, allergens, and toxins.

The production of digestive enzymes is diminished by the following:

- Deficiency of essential minerals, microelements, bicarbonates.
- Processed and refined foods that contain preservatives, chemicals, and pesticides.
- Saturated fat, sugar, and animal protein that accelerate the aging of the Pancreas.
- Age.
- Certain drugs, alcohol, and caffeine.
- Gallbladder and liver diseases.
- Stress.
- Pancreatitis

How do you know if you are deficient in pancreatic enzymes? If you have allergies, fatigue, bloating, gas, constipation, diarrhea, indigestion, slow recovery from injury, inflammatory diseases, weight problems, or IBS, you most likely have a pancreatic enzyme deficiency. Besides eating raw foods and enzyme supplementation, there is another way to promote pancreatic functioning.

For hundreds of years, Europeans with poor functioning of the pancreas or chronic pancreatitis have been drinking Karlovy Vary Healing Mineral Water (KVHWM). Virtually unknown in North America, this unique mineral supplement contains a variety of essential minerals and microelements in an easily digestible form.

The Czech town of Karlovy Vary (Carlsbad) has been a famous international healing resort since the 1700s. Europeans call the town's mineral water the "healing gift from the earth" or the "miracle mineral water." Visitors throughout Europe and Asia journeyed to Karlovy Vary for one to six month stays to drink the Karlovy Vary Healing Mineral Water (KVHMW). It became quite renowned as a healing remedy for chronic conditions.

KVHMW was so beneficial that research was done to manufacture the salt from the evaporated thermal spring water. In 1764, an inexpensive method was discovered that made it possible to distribute the water throughout the world. Czech doctors determined that the water manufactured from the genuine Karlovy Vary thermal spring salt had identical healing properties as at the spring. The healing mineral water prepared from the Genuine Karlovy Vary Thermal Spring Salt is safe, effective, and affordable.

The salt is a unique, ecologically clean product that is manufactured at the Karlovy Vary thermal spring.

KVHMW has been successful in healing such conditions as chronic hepatitis, fatty liver, early stages of cirrhosis, pancreatitis, esophageal acid reflux, diverticulosis, constipation, and parasites. 100 years ago, KVHMW was the only possible way to treat diabetes, obesity, gout, stomach ulcers, and liver problems. Today it remains a very important complementary approach for healing these disorders. There is no other mineral supplement in the world like KVHMW. The first research about KVHMW was done over 500 years ago. Since then, hundreds of clinical texts and articles have been published describing the positive effects of the water on both animals and humans.

Czech scientists found that the water can promote secretion and increase the activity of pancreatic enzymes (2, 3). Research has proven that enzyme activity is increased in healthy volunteers, people with chronic pancreatitis, and patients after gallbladder removal.

This was also confirmed in experiments on animals with fistula (tubes) in the pancreatic duct. In all these studies, KVHMW increased not only the amount of pancreatic juices, but also the activity of pancreatic enzymes. This action continues for lengthy periods when drinking KVHMW (2, 4, 5, 6).

KVHMW has the following positive effects on the pancreas and pancreatic digestive enzymes:

- Supplies the Pancreas with essential minerals and microelements for manufacturing digestive enzymes (2). Many enzymes require the presence of metal ions for activity. The metal cofactors most frequently used as enzyme activators are magnesium, manganese, zinc, potassium, iron, copper, calcium and cobalt.
- Supplies the pancreas with bicarbonates, the main ingredient of pancreatic juices (2). Pancreatic enzymes work only in an alkaline environment.
- Increases secretion of pancreatic juices (7).
- Increases digestive activity of pancreatic enzymes (3).
- Promotes the manufacture and release of digestive hormones in the duodenum, regulating the digestive process in the gastrointestinal tract and liver (2). The hormones signal the pancreas the amount of enzymes and bicarbonate that will be needed to digest protein, sugars, starches, and lipids arriving from the stomach.
- Neutralizes high levels of gastric acid.
- Promotes secretion of bile by the liver cells and elimination of bile throughout the hepatic and common bile ducts, and gallbladder (2, 8, 6).

- Opens the Sphincter of Oddi, decreasing pressure in the system, promoting secretion and elimination of pancreatic juices, and decreasing inflammation and congestion in the pancreas (9).

### Chronic Pancreatitis.

Chronic pancreatitis is an inflammation of the pancreas that can be caused by liver and gallbladder dysfunction. Difficulty eliminating bile can cause a blockage in the pancreatic ducts and predispose the pancreas to congestion and inflammation. A liver or gallbladder disorder causes pressure into the pancreatic ducts, causing congestion and chronic pancreatitis. Symptoms of chronic pancreatitis generally fall into two patterns. In one pattern, persistent mid-abdominal pain is present. With the second pattern, as the condition progresses, cells that secrete digestive enzymes are slowly destroyed. This leads to malabsorption with weight loss and bulky, greasy, foul-smelling stools with oil droplets.

KVHMW has been used increasingly throughout Europe in the treatment of pancreatic diseases. Patients with chronic pancreatitis or a damaged pancreas after surgery have experienced clinical improvement, confirmed by ultrasonography, and blood and stool tests (10). Drinking KVHMW alleviates dyspepsia, malabsorption, and loss of fat with stool (Steatorrhea).

Researchers concluded that KVHMW can reduce the complications of Chronic Pancreatitis by:

- Promoting the production of liquid bile, which eases bile elimination by the liver (3, 8, 11).
- Decreasing inner pressure in the common bile and pancreatic ducts by restoring proper function of the Sphincter of Oddi (8, 6, 10).
- Decreasing congestion in the pancreas (2).
- Promoting elimination of pancreatic juices (10).
- Reducing inflammation and microbials (12, 13).
- Restoring friendly intestinal flora (14, 15, 16).
- Replenishing essential minerals and microelements, such as magnesium, calcium, and zinc (17).
- Normalizing the acid-alkaline balance for proper secretion of alkaline pancreatic juices (2, 10).

Chronic Pancreatitis is very difficult to treat. KVHMW can greatly improve the condition and prolong life.

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