



## **Swallowing Difficulties and Polio**

A Bruno Byte from  
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Fifty years ago polio pioneer David Bodin discovered that every polio survivor had some poliovirus-damage to neurons in the brain stem, the so-called "bulb" of the brain. When brain stem damage was severe "bulbar" polio was diagnosed whose icon, the iron lung, was needed when brain stem breathing-control neurons stopped working. But the most common symptom of "bulbar" polio was trouble swallowing, not trouble breathing.

Poliovirus-damaged brain stem neurons that control the vagus nerve that carries commands from the brain stem to activate muscles in your throat, esophagus, stomach and intestines, are the cause of swallowing problems. Vagus damage disrupting the normal functioning of the gut may explain our 2000 Post-Polio Survey findings that swallowing difficulty, diarrhea, colitis, ulcers and constipation are as much as six times more common in polio survivors than in non-polio survivors.

Polio survivors have also been reporting another problem: Food sticking in the upper esophagus. We think this is due to the vagus not stimulating esophagus muscles to move the food downward. When food gets stuck, irritation triggers a painful esophagus muscle spasm that also stimulates the vagus nerve.

Polio survivors having frequent or severe trouble swallowing problems should see an ENT doctor and may need a video swallow study to find their cause and make sure something other than PPS isn't causing the trouble. Usually, slowly eating small bites of food, drinking water after each bite, tucking your chin or turning your head to one side when you swallow, swallowing several times, and eating your big meal when you're most rested is all that's needed to treat swallowing problems. A speech therapist can help you learn tricks to beat your unique problems.

For polio survivors who report that food gets stuck in the esophagus, we've found that a very low dose of the muscle relaxant Klonopin, taken thirty minutes before eating, relaxes spasms and stops food from sticking in the esophagus. Those who have heartburn, or who think they have ulcers, may have reflux and should talk to their doctors about being evaluated and medications to reduce stomach acid.

Polio survivors who have any swallowing difficulty—especially if they have breathing problems now or had them with their polio attack—need to make sure food and water aren't "going down the wrong pipe," getting into the lungs and potentially causing pneumonia. Although pneumonia is exceedingly rare, please remember this: If you develop a new breathing problem or a hint of a chest infection, see a doctor ASAP! The lungs you save may be your own!

### **The Encyclopedia of Polio and Post-Polio Sequelae**

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