Biofeedback – A recent abdominal surgery or injury could have serious, long-term effects on a person's breathing and lead to chronic illness. When recovering from surgery or injury to the abdomen, it is instinctual for people to breath in a more shallow manner so as not create discomfort or for fear they may even disrupt the healing process (e.g., open a stitch or staple). Prolonged shallow breathing can result in people experiencing hyperventilation-like panic attacks or worse.

A recent article "Did You Ask about Abdominal Surgery or Injury? A Learned Disuse Risk Factor for Breathing Dysfunction," in the journal *Biofeedback*, looks at two case studies in which abdominal surgeries led to breathing dysfunctions and ultimately chronic, serious illnesses for patients. In the first example, a routine appendectomy caused a 24-year-old male to develop rapid, shallow breathing that initiated a series of up to 12 seizures per week. Through the use of biofeedback, he was able to control his breathing and ultimately, after one year, he experienced only one seizure. In the second study, a 39-year-old female developed anxiety, insomnia, and panic attacks after her second kidney transplant due to her elevated breathing levels. She was also treated by practicing biofeedback and learned to control her breathing patterns and reduce her symptoms.

The commonality between the patients in these two studies was that neither one realized that he or she was tensing the abdomen and breathing shallowly through just the chest. This was causing rapid air intake and, in one person, causing epileptic episodes and in the other, severe panic attacks. This behavior is not uncommon in post-operative abdominal surgery patients. The results reported in this article led author Erik Peper to later comment, "[I] highly recommend that anyone who has experienced abdominal insult, injury, or surgery observe their breathing pattern and learn to breathe diaphragmatically instead of shallow rapid chest breathing. The assessment and retraining should be done four or six weeks after the abdominal injury and be part of normal post-operative care."

Overall, this article highlights the importance of both doctors and post-operative abdominal surgery patients realizing the signs of distressed breathing, and that distressed breathing can result from surgery or injury. The sooner these symptoms are diagnosed and treated, the less likelihood a patient has of developing a chronic illness. Biofeedback is an excellent tool to help combat these symptoms and teach patients how to individually maintain control of their bodies.

Full text of the article, " Did You Ask About Abdominal Surgery or Injury? A Learned Disuse Risk Factor for Breathing Dysfunction ," *Biofeedback*, Vol. 43, No. 4, 2016, is now available.

About *Biofeedback*

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