

## Biofeedback for Functional Abdominal Pain

Functional Abdominal Pain (FAP) is one of a group of Functional Gastroenterological Disorders (FGD), which includes Irritable Bowel Syndrome (IBS), and Functional Dyspepsia (FD). FAP has been identified as recurrent episodes of abdominal pain severe enough to interfere with a patient's usual activities but it is not caused by an identifiable organic disease and is unrelated to bowel function (Sanders et al. 1994). Minimal criteria for patient inclusion in studies of FAP consist of at least three bouts of pain severe enough to affect activities during a period of not less than 3 months, with episodes occurring in the year preceding the examination (Clouse et al. 2006). FAP affects approximately 10&ndash;15% of the pediatric population (Apley & Naish 1958; Kristjansdottir 1996; Oster 1972; Parcel et al. 1977). It causes disruption of daily activities/missed school days, over-utilization of healthcare (Hyams et al. 1996), unnecessary surgeries, learning difficulties (DiPalma and DiPalma 1997), and anxiety (Jansdottir 1997).

There is good evidence to support using behavioral interventions, such as biofeedback, in reducing or eliminating FAP. Treatment, including temperature and breathing training biofeedback, along with adding fiber to the diet, has been shown to be more effective than adding fiber alone (Humphreys & Gevirtz, 2000).

Investigators have found that after completing 6 sessions of heart rate variability (HRV) biofeedback, a sample of children with FAP were able to significantly reduce their symptoms in relation to significantly increasing their autonomic nervous system balance (Sowder et al. 2010).

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### References:

Apley, J., & Naish, N. (1958). Recurrent abdominal pains: A field survey of 1,000 school children. *Archives of Disease in Childhood*, 33 (168), 165&ndash;170.

Clouse, R., Mayer, E., Aziz, Q., Drossman, D., Dumitrascu, D., Monnikes, H., et al. (2006). Functional abdominal pain syndrome.

Gastroenterology, 130 (5), 1492&ndash;1497.

DiPalma, A., & DiPalma, J. (1997). Recurrent abdominal pain and lactose maldigestion in school-aged children. *Gastroenterology Nursing*, 20 (5), 180&ndash;183.

Humphreys, P. A., & Gevirtz, R. N. (2000). Treatment of recurrent abdominal pain: components analysis of four treatment protocols. *Journal of Pediatric Gastroenterology and Nutrition*, 31 (1), 47&ndash;51.

Hyams, J. S., Burke, G., Davis, P. M., Rzepski, B., & Andrulonis, P.A. (1996). Abdominal pain and irritable bowel syndrome in adolescents: A community-based study. *Journal of Pediatrics*, 129 (2), 220&ndash;226.

Jansdottir, G. (1997). The relationship between pains and various discomforts in school children. *Childhood: Global journal of child research*, 4, 491&ndash;504.

Kristjansdottir, G. (1996). Sociodemographic differences in the prevalence of self-reported stomach pain in school children. *European Journal of Pediatrics*, 155 (11), 981&ndash;983.

Oster, J. (1972). Recurrent abdominal pain, headache and limb pains in children and adolescents. *Pediatrics*, 50 (3), 429&ndash;436.

Parcel, G. S., Nader, P. R., & Meyer, M. P. (1977). Adolescent health concerns, problems, and patterns of utilization in a triethnic urban population. *Pediatrics*, 60 (2), 157&ndash;164.

Sanders, M., Shepherd, R., Cleghorn, G., & Woolford, H. (1994). The treatment of recurrent abdominal pain in children: a controlled comparison of cognitive-behavioral family intervention and standard pediatric care. *Journal of Consulting and Clinical Psychology*, 62 (2), 306&ndash;314.