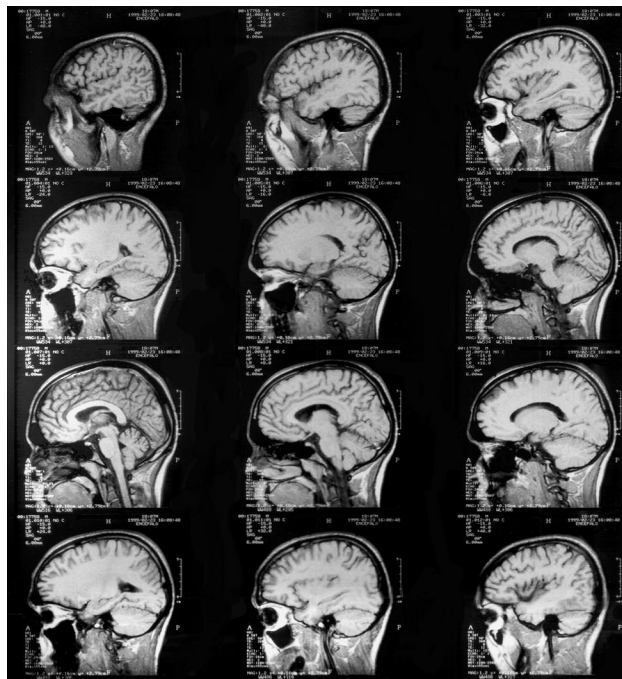


Weight Gain in Children Taking Seizure Medication

Valproic acid is a medicine used by children and adults who have seizures, which are episodes of uncontrolled electrical activity in the brain. This drug works by increasing the amounts of certain natural substances in the brain. It is effective for treating many different types of seizures and is well tolerated by most people. However, valproic acid has been associated with weight gain in up to 71% of adults. Of course, increased weight is also associated with liver disease, diabetes, and cardiovascular diseases.

Until recently, no studies have specifically assessed weight changes in children who take valproic acid. In 2002, Italian researchers began collecting data from 51 children 2–8 years of age who were taking valproic acid. The children were, on average, nearly 5 years old when they began taking the drug, and they were studied for an average of 3 years. When body mass index (BMI, a way of expressing body weight in relation to height) was corrected to account for the growth of these children during the years that they took valproic acid, the data showed



that body weight did increase significantly after the children began taking the drug.

Weight gain appeared to be greatest during the first 16 months that these children took valproic acid, after which the weight gain seemed to level off. Before starting valproic acid, less than 7% of the patients were overweight. After treatment with this medication, however, 16% of the children were overweight.

While these results suggest that valproic acid was responsible for the increase in weight, the percentage of overweight children at the end of the study overlaps with the percentage of healthy children that would have been expected to be-

FOR MORE INFORMATION

National Heart, Lung, and Blood Institute Body Mass Index (BMI) Calculator
www.nhlbisupport.com/bmi/

Medline Plus - More about Valproic Acid
www.nlm.nih.gov/medlineplus/druginfo/medmaster/a682412.html

National Library of Medicine - More about Seizures
<http://www.nlm.nih.gov/medlineplus/seizures.html>

Based on “Body Mass Index and Serum Lipid Changes During Treatment with Valproic Acid in Children with Epilepsy” by Salvatore Grosso, Rosa Mostardini, Barbara Piccini, and Paolo Balestri, *The Annals of Pharmacotherapy*, January 2009, <http://dx.doi.org/10.1345/aph.1L414>. For Our Patients is provided by *The Annals* to help explain the latest research and information relating to your medications. These summaries are for informational purposes only and are not a substitute for professional advice from your personal medical provider. If you have questions about this material, you should discuss it with your physician or pharmacist. This summary may be reproduced without permission for not-for-profit educational purposes only. Any other use must be approved by the publisher. © Copyright 2008, Harvey Whitney Books Company, www.hwbooks.com. FOPE23 DOI 10.1345/fop.1L414

come overweight during the study. It is possible that the same group of patients would have experienced weight gain even without valproic acid treatment.

It is still unclear whether valproic acid is responsible for weight gain in children. The good news is that even if the drug does contribute to an increase in weight, the effects seem to level off after 16 months. In addition, the study found that

other health problems commonly associated with increased weight, such as elevated cholesterol and diabetes, did not occur in these children. If your child has been prescribed valproic acid for seizures and has experienced weight gain, it is best to continue the drug if the medication has been beneficial in controlling the seizures. Talk to your child's physician about your concerns before making any medication changes.