Dumping syndrome is a group of symptoms caused by rapid passage of undigested food into the small intestine. The stomach has a valve at the top and bottom, and serves as an acid-filled storage tank, breaking food intake down into small, component parts and passing it to the small bowel in small increments.

After gastric bypass, ingested food passes directly into the small bowel, mixed only with saliva, but not the stomach acid. The component parts of the undigested food remain fairly intact and therefore large.

The small intestine responds by diluting the ingested food through a process of “water recruitment.” The “richer” the food, in terms of sugar content, the more water will rush into the small intestine to dilute it. This is referred to as “early dumping.”

**Early Dumping and Late Dumping**

Early dumping occurs a few minutes to 45 minutes after eating. Symptoms are not life-threatening, but can be frightening to the unsuspecting patient. Symptoms of early dumping are:

* Weakness and fainting
* Sweating
* Irregular and rapid heartbeat
* Low blood pressure
* Flushing of the skin
* Dizziness
* Shortness of breath
* Vomiting
* Diarrhea and cramps

Late dumping occurs two to three hours after eating. It is caused by excess insulin produced in response to rapid entry of food and fluids into the small intestine. The high insulin levels lower low blood glucose level and cause symptoms including:

* Perspiration
* Hunger
* Shakiness
* Anxiety
* Difficulty to concentrate
* Exhaustion
* Faintness

Answer provided by:
Taghreed Almahmeed, MD, FRCSC, and Michel Murr, MD, FACS
The diagnosis of late dumping syndrome can often be confirmed through frequent blood sampling to measure blood glucose.

You can prevent early and late dumping by avoiding the foods that cause dumping. In other words – sugars, starches and fried foods. Eat at least five to six small, evenly spaced meals a day. Take meals dry (i.e. without water or beverages, and drink fluids only between meals). Because carbohydrate intake is restricted, protein and fat intake should be increased to fulfill energy needs. Examples include meats, cheeses, eggs, nuts, toast, potatoes and rice crackers. Milk and milk products are generally not tolerated and should be avoided.

Each person has a different tolerance, and you will discover what your personal safe foods might be throughout your post surgery life. Person “A” might have no problem with strawberries and person “B” might experience dumping every time a few strawberries are eaten and person “C” might be able to eat strawberries only if they are a little unripe. You will learn what your own trigger foods might be. Be aware that these may change over time as your bypass matures.

**General Measures to Treat Dumping**

For early dumping, lie down for 45 minutes until symptoms pass to minimize the chances of fainting. For late dumping, eat small amounts of sugar candy or drink sweetened juice until the symptoms of low blood sugar resolve. Additionally you can supplement food with dietary fibers such as fruit, vegetables and grain products. Many medical therapies have been tested, including pectin, guar gum and glucomannan. These dietary fibers form gels with carbohydrates, resulting in delayed glucose absorption and therefore avoiding a sharp increase in insulin. However in 3 to 5 percent of instances, severe symptoms of dumping can continue despite dietary changes. This results in marked weight-loss, fear of eating and outdoor activities, or even an inability to maintain full time employment.

Medical management of dumping includes acarbose or octreotide. Acarbose delays absorption of food and maintains an even blood glucose level. Octreotide is an analog of a hormone in the digestive system that can alleviate dumping by inhibiting insulin release and by slowing transit of food in the small intestine.

**Dumping is Common**

Dumping syndrome is a common post-surgical complication after gastric surgery. The symptoms of dumping may cause considerable morbidity. If medical management fails to provide adequate symptom relief, remedial surgery should be offered with the understanding that even surgical intervention may not be successful. Normally most patients have a spontaneous recovery as the digestive system adapts after surgery. Early dumping syndrome usually occurs for three to four months after surgery. Late dumping syndrome can occur for an entire year, but may persist for many years. If you experience any of these symptoms, contact your health provider to review your food diary and implement changes to help you.

**About the Authors:**

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Michel Murr, MD, FACS, is an Associate Professor of Surgery at the University of South Florida and a leading authority in bariatric surgery nationwide. He pioneered laparoscopic gastric bypass in the Tampa Bay area and has done extensive research on obesity and its surgical treatment. His comprehensive multidisciplinary bariatric team performs more than 300 surgeries yearly.

**Order Your OAC Insurance Guide!**

The OAC is excited to offer its insurance guide, designed to provide individuals with the knowledge to successfully work with their insurance provider. It offers readers information discussing the effects of obesity and morbid obesity, tips for working with your insurance provider, how to read your insurance policy, detailed information concerning the treatment options available for morbid obesity and much more.

To order free copies of “Working with Your Insurance Provider: A Guide to Seeking Weight-Loss Surgery,” please visit www.obesityaction.org or contact us at (800) 717-3117 or info@obesityaction.org.
The mission of the Obesity Action Coalition is to elevate and empower those affected by obesity through education, advocacy and support.

About the OAC

The Obesity Action Coalition is a non-profit patient organization dedicated to educating and advocating on behalf of the millions of Americans affected by obesity. By strictly representing the interests and concerns of obese patients, the OAC is a unique organization with a patient-focused approach to obesity. To learn more about the OAC, visit www.obesityaction.org or contact the National Office at (800) 717-3117.

OAC Resources

Through education and advocacy, patients need to get involved to help drive change in the obesity community. The OAC provides several beneficial resources for patients, as well as professionals.

- OAC Introductory Brochure
- Obesity Action Alert
- OAC News
- State-specific Guides to Advocating for Improved Access to Obesity Treatments
- The OAC Web site: www.obesityaction.org

All OAC resources are complimentary and may be ordered in bulk. To request materials or an order form, please contact the OAC National Office at (800) 717-3117 or send an email to info@obesityaction.org.

OAC membership

Membership in the Obesity Action Coalition allows the patient voice to be heard in the fight against obesity. By building a coalition of members, consisting of patients, family members and professionals, the OAC strives to educate and advocate on behalf of the millions who are affected by obesity. Membership benefits include:

- Official charter membership card/certificate
- OAC News - the OAC’s quarterly newsletter
- Subscription to Obesity Action Alert - a monthly e-newsletter
- Representation through advocacy in addition to information on advocacy issues concerning patients
- Patient/Family Member: $20
- Allied Health Professional Member: $50
- Physician Member: $100
- Surgeon Member: $150
- Institutional Member: $500 (Bariatric surgery centers, weight-loss management centers, etc.)*
- Chairman’s Council: $1,000 and up*

* Different benefits apply. Contact the OAC National Office for more info.

Membership Application

Name: ____________________________
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City: ______ State: _____ Zip: _______
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Payment Information

Enclosed is my check made payable to the Obesity Action Coalition for $_________.
Please charge my credit card for my membership fee of $_________.

________________________________________
Credit Card #: __________________________
Expiration: __________ Name on Card: __________
Signature: ________________

Please mail to: Obesity Action Coalition
4511 North Himes Ave, Suite 250
Tampa, FL 33614
Or fax to: (813) 873-7838
If you have questions about OAC membership, please contact the National Office at (800) 717-3117.