The past decade has seen remarkable achievements in bariatric surgery for both safety and effectiveness. With more than 18 million patients qualifying for bariatric surgery, there are many patients who could potentially benefit from surgery with its powerful remission of obesity-related comorbidities like diabetes. Along with this benefit, we have also seen bariatric surgery safety become equal to the safety of removal of a gallbladder. As the field of bariatric surgery progresses, we also have increasing recognition of the chronic disease process of obesity. Given that surgery is a limited resource, all efforts to maximize and safeguard the benefits of bariatric surgery must be pursued. Medications play a large role in healthcare. In this article, I review how the medications can cause and treat obesity especially in relationship to bariatric surgery.

Like all chronic diseases, obesity has multiple causes. One cause for obesity may be self-inflicted. Obesity may be caused and worsened by medications. “Latrogenic” (relating to illness caused by medical examination or treatment) obesity is a real occurrence.

There are many drugs that increase your potential to gain weight. Every time your physician prescribes you a medication, you should ask the following three questions:

1. DOES THIS MEDICATION MAKE ME GAIN WEIGHT?
2. IS THERE A SIMILAR MEDICATION THAT IS WEIGHT NEUTRAL?
3. HOW LONG DO I HAVE TO BE ON THIS MEDICATION?

The following medications can all cause weight gain:

**STEROIDS** that are used to treat diseases like lupus or asthma, can slow down metabolism and lead to extra fat deposits. Make sure you have an expiration date for this powerful medication.

**ANTIDEPRESSANTS** can cause weight gain by affecting your appetite. Try to choose a weight neutral medication like Welbutrin if appropriate.
INSULIN, while it can treat diabetes, also increases hunger and weight gain in diabetic patients, which could further increase their need for even more insulin and more weight gain. It is important to maximize weight-loss promoting anti-diabetic medications like Metformin and Victoza.

BETA BLOCKERS can decrease your energy and limit your exercise. Also important to know is that many patients start eating a poor diet once on these medications because they no longer feel the need to work on their diet to improve their cardiac risk. Medications cannot nor should not take care of everything.

ANTIBIOTICS can potentially lead to weight gain throughout time. In the farming industry, antibiotic use has always been known to lead to weight gain. More research in this area needs to be done, but the type of bacteria in our intestine could change our weight.

MEDICATION IMPACT ON OBESITY

We are very aware that bariatric surgery has a powerful benefit for medical problems like diabetes and high blood pressure to the point that the medications for those diseases may no longer be required. However, it is important to realize that some medications may increase after bariatric surgery, specifically pain medications. Unfortunately, pain medications can lead to weight gain because these pain medications cause intestines to slow down. When intestines slow down, patients will turn to comfort foods like mashed potatoes or ice cream. It is important that pain medications be short term and that causes of pain be investigated and treated.

Another aspect of bariatric surgery and medications is that after surgery, particularly gastric bypass, medication absorption may change. Antidepressants may not have the same effect and it is important to check with your physician regarding your mood and dosage.

MEDICATIONS FOR OBESITY

While surgery can provide tremendous benefit, we are realizing that medications may add to this benefit. Many insurers require pre-operative weight-loss, and medications may aid in this effort. There are currently three FDA-approved medications for weight-loss (Belviq®, Orlistat, and Qsymia®). It should be noted that all the medications may have potential side-effects and it is essential you talk with your doctor about your weight-loss options.

In addition to utilizing medications preoperatively, there may be a use for obesity medications after surgery. While surgery is very effective, there may be patients who regain some weight. The amount of weight regain is dependent on the type of surgery, follow-up and many different patient factors like length of prior disease, such as diabetes. As the American Medical Association has declared obesity is a disease, then obesity is most certainly a chronic disease. Like any chronic disease, obesity may have partial or complete treatment effect through surgery alone. Obesity may be compared to heart disease where coronary artery bypass grafting (open heart surgery) can provide great benefit, but there may be a need for additional medications or interventions later.

A recent article reviewed revisional bariatric surgery and noted that the number of patients needing additional surgery after the original bariatric surgery may increase as more procedures are being performed. In addition to revisional surgery for weight regain, obesity medications may also provide a further benefit. In cancer surgery, surgeons often use chemotherapy or adjuvant therapy to enhance their results. In the future, we may find that bariatric surgery may also see its already sterling results further increase.

In conclusion, be careful with weight-promoting medications, know that bariatric surgery can decrease overall medication use post-operatively and realize that new obesity medications can be used to further enhance bariatric surgery outcomes.

About the Author:
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Editor’s Note: Imagery of medications used in this article are for illustration purposes only. Imagery used in this article does not represent actual obesity medications.
## Membership Application

### OAC Membership Categories
(select one)
- Individual Membership: $20/year
- Institutional Membership: $500/year
- Chairman’s Council Membership: $1,000+/year

### OAC Membership Add-ons
(optional, but only accessible by OAC members)

#### Add-on 1: Educational Resources
To order bulk copies of OAC resources, members can purchase educational packages. If you’d like to order resources, select one of the below packages.
- **Standard Package**
  - 10-50 pieces/quarter
  - $50/year
- **Deluxe Package**
  - 51-100 pieces/quarter
  - $100/year
- **Premium Package**
  - 101-250 pieces/quarter
  - $150/year

#### Add-on 2: Make a General Donation
Make a tax-deductible donation to the OAC when joining as a member. Your donation helps the OAC’s educational and advocacy efforts.
- $5
- $10
- $25
- $50
- $100
- Other

### Membership/Add-on Totals:
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- Add-on 1 (if applicable): +$_____
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Address: ______________________________
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- Check (payable to the OAC) for $_____.
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## Benefits to Individual Membership
- Official welcome letter and membership card
- Annual subscription to the OAC’s publication, Your Weight Matters Magazine
- Subscriptions to the OAC Members Make a Difference and Obesity Action Alert monthly e-newsletters
- “Bias Busters” Alerts, alerting specifically to issues of weight bias
- Immediate Advocacy Alerts on urgent advocacy issues and access to the OAC’s expert advocacy team
- Ability to lend your voice to the cause

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### Building a Coalition of those Affected
The OAC is the ONLY non-profit organization whose sole focus is helping those affected by obesity. The OAC is a great place to turn if you are looking for a way to get involved and give back to the cause of obesity.

There are a variety of ways that you can make a difference, but the first-step is to become an OAC Member. The great thing about OAC membership is that you can be as involved as you would like. Simply being a member contributes to the cause of obesity.

**Why YOU Should Become an OAC Member**
Quite simply, because the voice of those affected needs to be built! The OAC not only provides valuable public education on obesity, but we also conduct a variety of advocacy efforts. With advocacy, our voice must be strong. And, membership is what gives the OAC its strong voice.

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