# Bariatrics: Vitamin Supplementation

Amanda Walker, RDN, BSCN, LD/N





#### Required bariatric vitamins & minerals: Vertical Gastric Sleeve

- <u>Bariatric Multivitamin</u>: Covers all the specifically required vitamins and minerals for individuals who are or have gone through bariatric surgery. One multivitamin/day is required. Depending on the multivitamin you have chosen, make sure it has a minimum of 18mg Iron for men and 45mg Iron for women.
  - For women having a monthly menstrual cycle, 65mg Elemental Iron (Ferrous sulfate) per day is recommended.
- <u>Calcium Citrate</u>: Needed to support and maintain calcium balance and prevent bone loss in addition to maintain normal nerve, muscle, and cardiac function.
   1,200-1,500mg daily is required. Calcium Citrate is easier to absorb then Calcium Carbonate and is less likely to contribute to kidney stones.



#### Required bariatric vitamins & minerals: Vertical Gastric Sleeve

- <u>Vitamin D3</u>: Needed to support the rapid decrease of fat cells which assist with the absorption of fat-soluble vitamins and bone mass. 2,000-3,000 international units (IU) or 75 micrograms of vitamin D3 daily. Add the amount of vitamin D in your multivitamin and calcium supplements to determine if you are meeting your vitamin D needs. If you are not, you may need to consider taking an additional vitamin D3 supplement.
- <u>Vitamin B12</u>: is a nutrient that helps keep your body's blood and nerve cells healthy and assists with making DNA (the genetic material in all of your cells). It also helps in prevention of megablastic anemia (a blood condition that makes people tired and weak), which is can often be diagnosed in bariatric patients. 1,000-2,000mcg Vitamin B-12 daily is highly recommended post- surgery, but can increase to 5,000mcg daily depending on B-12 levels.



## Required bariatric vitamins & minerals: Roux-en-Y Gastric Bypass

- Bariatric Multivitamin: Covers all the specifically required vitamins and minerals for individuals who are or have gone through bariatric surgery.
   One multivitamin/day is required. Depending on the multivitamin you have chosen, make sure it has a minimum of 18mg Iron for men and 45mg Iron for women.
- <u>Calcium Citrate</u>: Needed to support and maintain calcium balance and prevent bone loss in addition to maintain normal nerve, muscle, and cardiac function. 1,200-1,500mg daily is required. Calcium Citrate is easier to absorb then Calcium Carbonate and is less likely to contribute to kidney stones.



## Required bariatric vitamins & minerals: Roux-en-Y Gastric Bypass

- <u>Vitamin D3</u>: Needed to support the rapid decrease of fat cells which assist with the
  absorption of fat-soluble vitamins and bone mass. 2,000-3,000 international units (IU) or 75
  micrograms of vitamin D3 daily. Add the amount of vitamin D in your multivitamin and
  calcium supplements to determine if you are meeting your vitamin D needs. If you are not,
  you may need to consider taking an additional vitamin D3 supplement.
- <u>Vitamin B12</u>: is a nutrient that helps keep your body's blood and nerve cells healthy and assists with making DNA (the genetic material in all of your cells). It also helps in prevention of megablastic anemia (a blood condition that makes people tired and weak), which is can often be diagnosed in bariatric patients. 1,000-2,000mcg Vitamin B-12 daily is highly recommended post- surgery, but can increase to 5,000mcg daily depending on B-12 levels.
- **Zinc**: is an essential micronutrient for the body's immune system. Additionally, aids in cell production, supporting enzymes, and wound healing. It is also known to contain both anti-inflammatory and antioxidant properties. 15-22mg Zinc daily is recommended. Check your Bariatric multivitamin to ensure you are getting this as a minimum amount. If you are not, supplement with additional amount to meet the minimum requirement.



#### Required bariatric vitamins & minerals: Duodenal Switch/SADI-S

 Bariatric Multivitamin with ADEK (Chewable DRY Form): Covers all the specifically required vitamins and minerals for individuals who are or have gone through D/S Bariatric Surgery. One multivitamin with ADEK/day is required.
 Depending on the multivitamin you have chosen, make sure it has a minimum of 45mg Iron. NO GUMMIES! The Multivitamin should contain these amounts of vitamins ADEK:

Vitamin A: 10,000 IU

Vitamin E: 400 IU

Vitamin D: 3000 IU

Vitamin K: 300 IU

<u>Calcium Citrate</u>: Needed to support and maintain calcium balance and prevent bone loss in addition to maintain normal nerve, muscle, and cardiac function.
 1,200-1,500mg daily is required. Calcium Citrate is easier to absorb then Calcium Carbonate and is less likely to contribute to kidney stones.



#### Required bariatric vitamins & minerals: Duodenal Switch/SADI-S

- <u>Vitamin D3:</u> Needed to support the rapid decrease of fat cells which assist with the absorption of fat-soluble vitamins and bone mass. 3,000-5,000 international units (IU) of vitamin D3 daily. Add the amount of vitamin D in your multivitamin and calcium supplements to determine if you are meeting your vitamin D needs. If you are not, you may need to consider taking an additional vitamin D3 supplement.
- <u>Vitamin B12</u>: is a nutrient that helps keep your body's blood and nerve cells healthy and assists with making DNA (the genetic material in all of your cells). It also helps in prevention of megablastic anemia (a blood condition that makes people tired and weak), which is can often be diagnosed in bariatric patients. 3,000-5,000mcg Vitamin B-12 daily is highly recommended post- surgery, but can increase depending on B-12 levels.
- **Zinc**: An essential micronutrient for the body's immune system. Additionally, aids in cell production, supporting enzymes, and wound healing. It is also known to contain both anti-inflammatory and antioxidant properties. 15-22mg Zinc daily is recommended. Check your Bariatric multivitamin to ensure you are getting this as a minimum amount. If you are not, supplement with additional amount to meet the minimum requirement.



#### Additional Supplements that Make a Difference:

- <u>B-50 Complex</u>: is a combination of B-Vitamins (8-11 B-Vitamins). It is highly recommended to take B-50 for the first 3 months immediately after bariatric surgery (when you are at your most vulnerable) to prevent B-Vitamin deficiencies due to poor oral diet intake (protein/calories), and provide additional support for glucose metabolism and decrease chances of Berberi (Thiamin deficiency).
- **Probiotics**: are live microorganisms (healthy bacteria) that can assist with constipation, diarrhea, bloating/gas and assist with creating a health gut microbiome (healthy digestion).
- <u>Fish Oil</u>: is a good source of Omega 3 Fatty Acids. It can assist with decreasing elevated triglycerides and help maintain and improves HDL levels (good cholesterol) in addition to assist with regrowth of hair. Skin and nails.



#### Additional Supplements that Make a Difference:

- Soluble Fiber: Fiber comes from plant-based foods and passes through your system undigested, and some fiber types dissolve in water, while others do not. Both soluble and insoluble fiber is important for your health. Soluble fiber dissolves in water and includes plant pectin and gums. Insoluble fiber doesn't dissolve in water. It includes plant cellulose and hemicellulose. 25-30g Fiber/day is recommended after weight loss surgery.
- <u>Folate B9</u>: needed for red blood cell formation and healthy cell growth and function. Folate helps form DNA by creating nucleotides. It also helps in protein metabolism by breaking down homocysteine, an amino acid that can cause adverse health effects in high concentrations.



#### **Food Sources of B Vitamins**

- Thiamin (B-1): Peas, Banana, Orange, Nuts, Whole Grains, Fortified Grains, Liver
- Riboflavin (B-2): Eggs, Milk (lowfat recommended), Fortified Grains, Mushrooms, Plain yogurt
- Niacin (B-3): Red Meats, Fish, Whole Wheat Flour, Eggs
- <u>Pantothenic Acid:</u> Chicken, Beef,
   Liver, Eggs, Mushroom, Avocado
- Pyridoxine (B-6): Pork, Poultry, Some Fish, Peanuts, Soybeans, Wheat Germ, Oats, Banana, Milk, Fortified Whole Grains

- Biotin (B-7): Eggs, Fish, Red Meats, Sunflower Seeds, Almond Nuts, Liver, Sweet Potatoes, Spinach
- Folate & Folic Acids (B-9):

   Dark Green Vegetables (Broccoli,
   Brussels Sprouts, Leafy Green
   Vegetables, Peas,
   Chickpeas/Kidney Beans, Liver,
   Fortified Whole Grains
- Meat, Fish, Milk, Cheese, Eggs, Fortified Whole Grains



# Recommended Vitamins & Minerals are F-O-R-E-V-E-R!

It is extremely important to remember to always take your prescribed and required Bariatric Multivitamins regardless of how you might be feeling right after surgery or 2+ years after surgery.

Failure to take vitamins and minerals will eventually lead to vitamin/mineral deficiency that can be challenging to replenish or correct. Some deficiencies with require IV replete therapy and constant blood work. IV therapy can be very costly.

It's BEST to just take your required Vitamins/Minerals!

# Questions?

Call LMG Bariatrics at 505-727-2790.

