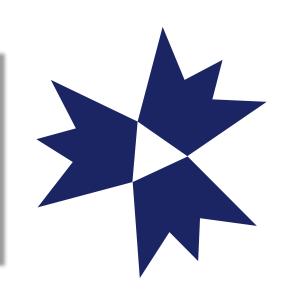
# Preparing Your Body In Advance of Surgery

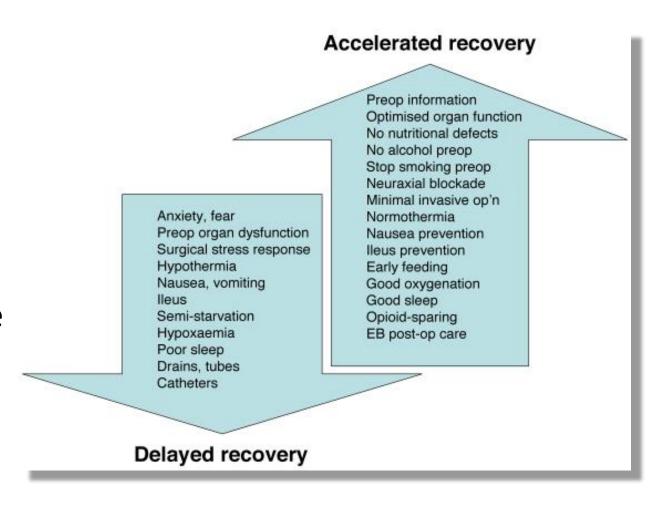


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# Surgical Stress Response

- Surgery stresses the systems of the body
- Your body has to be able to respond to this stress to heal quickly
- Advance preparation can improve your body's stress response
- We will review steps you can take to get your body ready



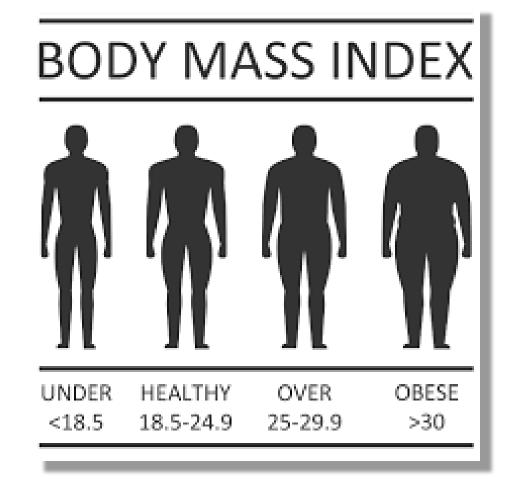
# Health Optimization

- Being in your best health prior to surgery is important
- If you have other health problems such as heart, lung, kidney or liver disease, or diabetes, work with you primary care physician to make sure these conditions are stable and well controlled



### Obesity

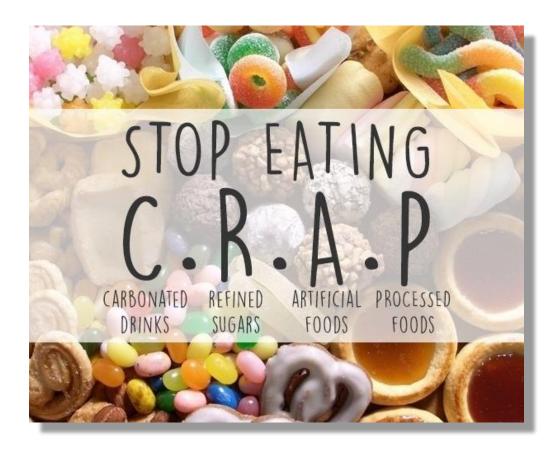
 Obesity is an epidemic and has been linked to a higher risk of complications after surgery including infection and wound problems



 Obese people also have a higher risk of medical problems that can increase the risk of problems after surgery and affect the recovery and outcome of joint replacement

### Weight Control

- Losing weight before surgery can reduce these risks, improve your outcome and improve your overall health
- Look at surgery is a great excuse to tackle this issue



- One strategy that can be helpful is reducing carbohydrate intake, particularly sugar.
- Reducing consumption of processed food is also important

### Alcohol Intake

- Alcohol is dehydrating and increases your liver's metabolism of medications
- We recommend cutting back on alcohol intake leading up to surgery so that your meds work better



- Do not drink alcohol the night before surgery
- Drink a sports drink with electrolytes instead like Gatorade or Powerade.
- If you have diabetes, these come in low-sugar forms

# Smoking

- Smoking leads to a higher risk of infection and wound healing problems
- These can be disastrous after a joint replacement
- You should strongly consider smoking cessation prior to joint replacement
- This is your opportunity to accomplish something that is generally good for your overall health
- You should not risk a poor outcome after surgery because of smoking



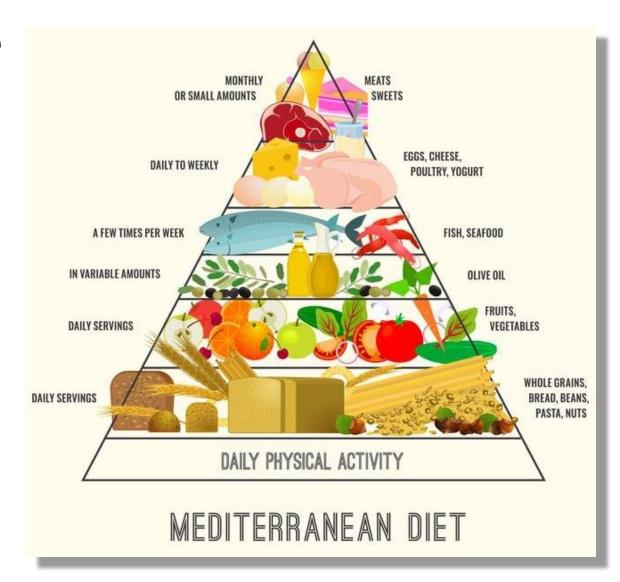
#### Nutrition

- Adequate nutrition is important for tissue healing and overall recovery
- The weeks leading up to surgery is a great time to optimize what you eat and pack your body with essential nutrients
- Avoid foods that have empty calories (calories without nutrition)
- We will review some strategies in the following slides



#### Nutrition: Weeks Before

- The Mediterranean diet is an excellent balanced source of nutrition
- Starting a diet like this weeks before surgery can improve your health status
- There are abundant meal ideas online that you can search for ideas



### Foods to nourish your body before and after

- Beta-carotene: this is converted into Vitamin A which helps with tissue repair after surgery
  - Sources: sweet potatoes, carrots, kale, spinach, cantaloupe, apricots
- Vitamin C: this is involved in collagen production which also assists in tissue repair
  - Sources: citrus fruit, kiwi, kale, broccoli, bell peppers, pineapple
- **Zinc**: zinc helps boost and regulate proper immune function which assists with healing and may help lower the risk of infection
  - Sources: pumpkin, squash, beef, lamb
- Quercetin: this is another natural compound that boosts immune health and lowers inflammation:
  - Sources: apples, cherries, blueberries, broccoli, spinach, kale

### **Protein Supplementation:**

Weeks Before

- Proteins are the building blocks of healing
- Protein supplementation in the weeks before surgery can improve your healing capacity and strengthen your muscles
- Whey protein powder mixed with fruit and water can make a delicious snack or meal replacement





#### **AVATAR Power Smoothie**

- Frozen Berry Blend
- Kale
- 1 TBSP chia seed
- 1 TBSP flax seed meal
- 1 scoop When Protein
- Water or soy milk
- Ice as needed
- Note: kale adds essential nutrients but does not affect the taste of a berry smoothie
- Note: most of these ingredients are available at your grocery store. Brand names listed here are not essential
- Note: Honey also makes a good addition but should be local organic honey. This too protects against infection.











### Vitamins and Minerals

 We recommend starting the following as soon as you make the decision to proceed with surgery.



- ➤ Vitamin A 10,000 IU daily (strengths healing and immunity)
- >B Complex Vitamins one daily (energy metabolism and immunity)
- ➤ Vitamin C 1000 mg daily (strengthens tissue and immunity)
- ➤ Vitamin D 2,000 IU daily (strengthens bone and immunity)
- >Zinc 50mg daily (improves immune health)
- > Magnesium 400mg daily (cellular metabolism and health)

### What Not to Take Before Surgery

- The following vitamins and supplements can increase the risk of bleeding at the time of surgery and should be stopped at least 2 weeks prior
  - Vitamin E
  - Garlic
  - Ginkgo
  - Ginseng
  - Ginger
  - St John's Wort

#### Exercise: Prehabilitation

 Exercising your body before surgery can strength the muscles that will support your new joint and improve your range of motion.



- This will make your recovery easier
- Exercise also promotes heart health, weight control and general well being
- We may recommend that you visit with a physical therapist so they can guide you on the proper exercises for your condition

### Stress Management

- Surgery can be emotionally stressful
- Added stress can be exhausting and this can negatively affect one's outlook and healing process
- Any measures you can take to reduce additional stress by organizing your life and tying up loose ends will reduce unnecessary worries after surgery
- If you have concerns related to this, speak to your care team in advance and ask for help.

#### Consider Fall Prevention Measures

- Accidental falls lead to a surprising number of postoperative injuries some of which can be serious
- Here are some ways to reduce the risk of falls
  - Install nightlights around your bedroom and bathroom
  - Consider a shower chair and handrails
  - Get non-stick socks
  - Consider a raised toilet seat
  - Attach tread to stairs
  - Have handrail on both sides of stairs
  - Clean up loose cables and wires

