

Total Joint Replacement Handbook



John V Horberg, MD

Adult Reconstructive Surgery

Orthopaedic Trauma

PREMIER 

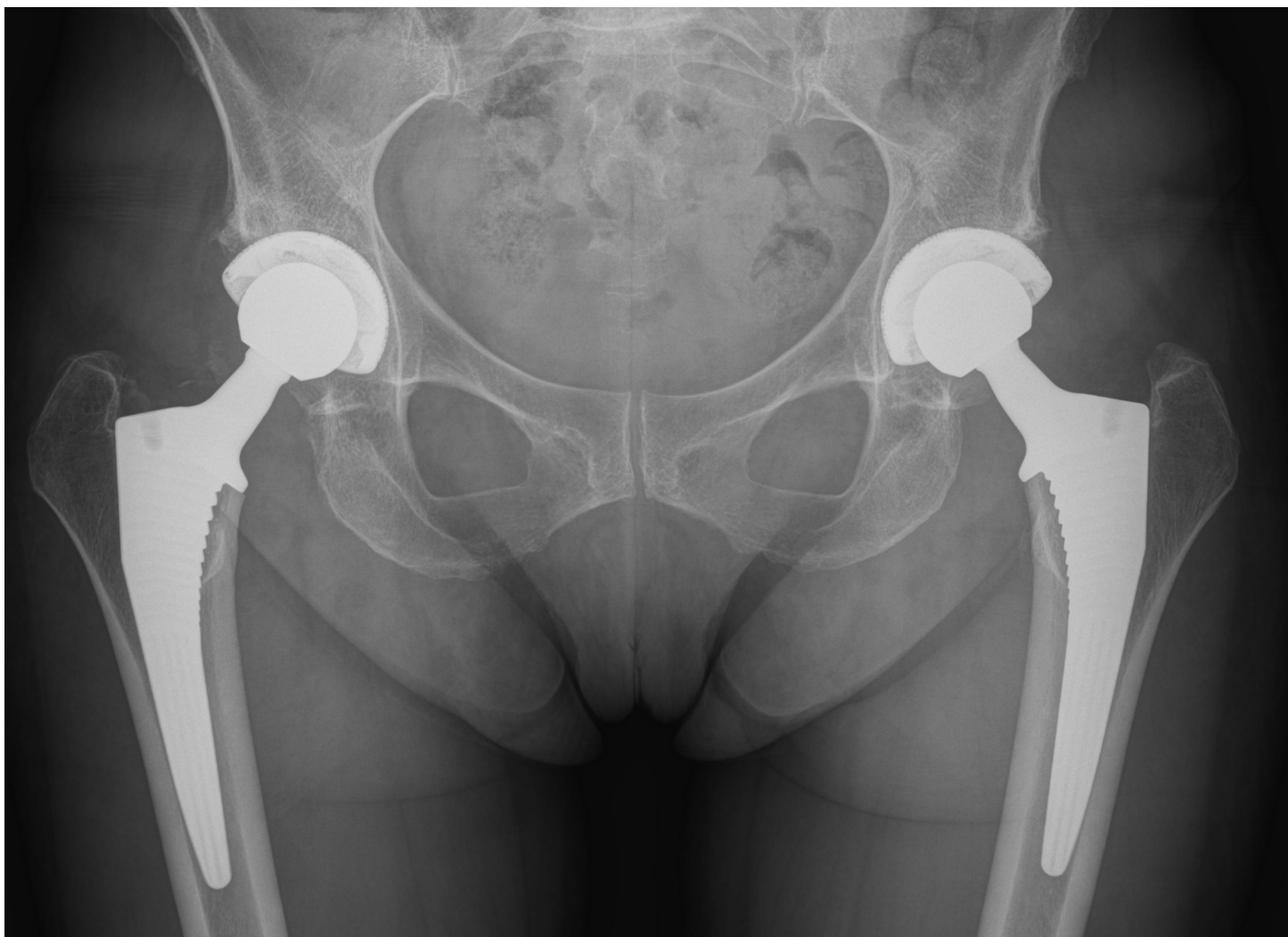
Bone & Joint Centers

WORTHY OF WYOMING





Total Joint Replacement Handbook



FIND MORE INFORMATION ONLINE:

Website: <https://www.horbergtotaljoints.com>

Follow on Instagram: @John_Horberg_MD

Follow on Facebook: @JohnHorbergMD

Follow on YouTube: <https://www.youtube.com/@horbergtotaljoints>

Website



YouTube



Instagram



Facebook



Table of Contents

Total Joint Replacement Handbook	2
Table of Contents	3
Welcome	6
Preparing for Surgery	7
Before Surgery Checklist	8
Medications to Stop BEFORE Surgery	11
14 Days before surgery: STOP	11
7 Days before surgery: STOP	11
5 Days before surgery: STOP	11
Medications you may CONTINUE TO USE before surgery	12
The NIGHT BEFORE Surgery: TAKE	12
The MORNING OF Surgery: TAKE	12
Preparing for a Speedy Recovery: Preventing Complications	13
Preparing for a Speedy Recovery Checklist	14
Preparing for a Speedy Recovery: Preoperative Exercises	15
Nutrition	16
Foods That Heal	17
Why Good Nutrition is Important Before & After Surgery.....	17
About this Nutrition Guide:.....	17
Healthy Heart Food Guide	18
Foods Rich in Iron	19
Fiber Content of Foods	20
Protein Supplementation and Homemade Milkshakes	21
Nutritional Advice to Avoid Nausea	22
Avoiding Constipation	23
Grocery List for Before Surgery	24
The Day of Surgery	25
The Night Before Surgery	26
Last Minute Reminders	26
What To Pack.....	26

One Last Look Around the House.....	26
Preoperative Bathing Instructions.....	27
Enhanced Recovery After Surgery (ERAS).....	28
Rules for Eating and Drinking Before Surgery.....	28
What Liquids Can I Drink During This Time?.....	28
The Morning of Surgery.....	29
What to Expect.....	29
The Afternoon/Evening after Surgery.....	30
What to Expect.....	30
Post-Op Day 01.....	30
What to Expect if You Stay.....	30
Discharge.....	31
Everyone Goes HOME After Surgery!.....	31
Your Passport to Discharge Home.....	31
Before You Go Home.....	31
Medical Equipment.....	31
Recovery.....	32
Recovery: What to Expect after Surgery.....	33
Recovery: What to Expect after REVISION Joint Replacement.....	34
Recovery: Post-Op Medications.....	35
Prescriptions.....	35
Over the Counter.....	35
Recovery: Pain Management.....	36
Recovery Timeline: “When Can I...?”.....	37
Bandages.....	37
Bathing.....	37
Activities & Exercises.....	37
Driving.....	37
Return to Work.....	37
Recovery: “Doc, Is this Normal...?”.....	38
Incisions & Skin.....	38
Pain & Other Sensations.....	38

Strength, Endurance & Function.....	38
Preventing Blood Clots.....	39
Preventing Infections: Antibiotic Guidelines for Life	40
How to Identify and Manage Complications if they Occur	41
Call Dr. Horberg’s Office if you have:	41
Call Your Primary Doctor’s Office if.....	41
Go to the Emergency Room if you have:.....	41
Speedy Recovery: Postoperative Nutrition.....	42
Why is Nutrition Important After Surgery?.....	42
What Should I Avoid?	42
Speedy Recovery: Postoperative Exercises	43
Supine Ankle Pumps.....	43
Supine Quadriceps Sets (Knee Push Downs).....	43
Supine Gluteal Sets (Bottom Squeezes)	44
Supine Short Arc Quadriceps.....	44
Seated Long Arc Quadriceps.....	44
Supine Heel Slides	45
Supine Hip Abduction/Adduction.....	45
Short Range Straight Leg Raise.....	45
Shoulder Pendulum Swings.....	46
Elbow Flexion	46
Elbow Extension	46
Internal & External Rotation	47
Shoulder Forward Flexion	47
Shoulder Abduction.....	47
Long Term Follow Up Care Plan	48
Quick Reference: Pre-Operative Checklist	49
Important Dates & Appointments.....	49
Arranging for Help After Surgery.....	49
Getting Yourself Ready for Surgery.....	49
Getting Your Home Ready for Recovery	49

Welcome

Preparing yourself to undergo a Total Joint Replacement can feel overwhelming, it is a major life decision. Before we go any further, I want you to understand that you are not in this alone. Joint replacement is a team effort that involves myself as your surgeon, my team in the office and operating room, hospital staff, your primary care doctor and your family and friends all working together to make this a positive experience for you.

To me, mobility is a precious gift that we often take for granted until injury, arthritis or other joint diseases start to take it from us. As an Orthopaedic surgeon and joint reconstruction specialist, I am passionate about helping my patients get their mobility back and to live more active, pain-free lives.

Once medications, exercise, activity modification and assistive devices can no longer provide you with meaningful relief, a total joint replacement is an outstanding option to improve your pain and function. Although joint replacement was popularized in the United States in the 1970s, amazing innovations in techniques and technology have made total joint replacements some of the most successful operations in all of medicine. I am committed giving my patients the highest quality care using the most cutting edge techniques available.

In order to ensure you the best possible outcome and fastest recovery, I ask you to prepare yourself both mentally and physically for surgery. What I do in the operating room is only a part of what makes for a successful joint replacement. We will schedule your surgery with plenty of time for you to fully prepare yourself, your support system and your home. This book will include information on what to do leading up to surgery as well as after to ensure your joint replacement surgery is a success. Please read it carefully and refer to it as often as you need. If you have any questions, never hesitate to reach out. We're in this together.

Sincerely,
John V Horberg, MD

Preparing for Surgery



PREMIER 
Bone & Joint Centers
WORTHY OF WYOMING

Before Surgery Checklist

- ☐ **ARRANGE HELP AT HOME:** You will need **help at home** in the early days **after your surgery**. It is **VERY IMPORTANT** that you arrange for a family member, friend or caretaker to be spend the first several days/nights with you. Nearly all patients go home on either the day of surgery or the day after surgery.
 - We do **NOT** recommend going to a rehab facility.
 - Studies have shown that patients do better at **HOME** after joint replacement
 - Studies have shown more complications and worse outcomes at rehab facilities
- ☐ **ARRANGE TRANSPORTATION:** You will need **help getting home** from the hospital after your surgery. You may also need help getting to outpatient physical therapy which starts within 3 days of your surgery. It is **VERY IMPORTANT** that you arrange for a **family member, friend or caretaker** to help you get home and to and from therapy. **(page 26,31)**
- ☐ **PREPARE YOUR HOME:** Make sure you have a sturdy, comfortable chair and put frequently used items within easy reach. Remove rugs, cords and clutter that you could trip over from where you will be walking. You may want to consider preparing meals ahead of time as well.
- ☐ **MEDICAL CLEARANCE:** You need to see your primary care doctor **BEFORE** surgery. This is **time sensitive**.
 - No More than 30 days before surgery
 - No Less than 10 days before surgeryMost patients schedule their appointment for **two weeks** before surgery. **We will give you a sheet that you need to take to your appointment with you.** This will let your physician know what, when and where you are scheduled for surgery.
- ☐ **CARDIAC or SPECIALIST CLEARANCE:** If you have been told that you need to be cleared by someone other than your primary care doctor, **call them and get this appointment as soon as possible**.
 - There is a form from our office that your specialist can fill out.
 - **They will need to fax us a note. The PBJC surgery schedulers will help coordinate.**
 - Most specialist clearance notes are good for six months
- ☐ **DENTAL CLEARANCE:** You need to see your dentist for a full exam **BEFORE** surgery. You must be seen within six months **BEFORE** your surgery.
 - All dental cavities and dental infections must be treated **BEFORE** surgery
 - Gum and dental infections can cause infection in artificial joints
 - After your joint replacement you will need to take precautions before dental cleanings. More information about this is found in the postoperative section of this booklet. **(page 40)**

-
- **TOTAL JOINT BOOTCAMP:** All patients undergoing total joint replacement **MUST** to attend the PBJC total joint bootcamp class. The **PBJC Surgery Scheduling team** will coordinate your **PBJC Total Joint Bootcamp** to ensure you are ready for surgery!
 - The PBJC Surgery Scheduling team will assist you to schedule this class
 - **Online options may be available, ask Dr. Horberg's team for more information**
 - **SKIN HEALTH:** Skin lesions, rashes, cuts or scabs on the same arm or leg as surgery can cause infection. Dr. Horberg may cancel your surgery if there is concern that skin lesions would make surgery unsafe. Be especially careful in the weeks leading up to surgery to avoid injury. If you have concerns, call the office and you may be scheduled for a skin check.
 - **STOP SOME MEDICATIONS:** You will need to stop taking some medications in the weeks leading up to surgery.
 - **A detailed list of which medications to stop and when is found on (page 11-12)**
 - Please review this list carefully at least two weeks before surgery
 - **PRE-OP OPTOMIZATION:** You will need to begin preparing your body for surgery in the weeks leading up to surgery.
 - Pre-op **Medications** and **activities** you need to begin are found on **(page 13-14)**
 - Your pre-op **home exercise regimen** is found on **(page 15, 43-47)**
 - Pre-op nutrition recommendations are found on **(page 16-21)**
 - **PRE-OP SHOPPING LIST:** There are over-the-counter **medications/supplements** you will need to buy before surgery. These are **NOT** included in your prescriptions. **(page 24)**
 - **BATHING BEFORE SURGERY:** You need to shower with a special soap the **NIGHT BEFORE** and the **MORNING OF** your surgery. You should have two packages of **Hibicleans soap** that you received from our office. If you cannot find them you can pick them up at the front desk of our office.
 - If you are allergic to Hibicleans or cannot find your soap you can use **LEVER 2000** as an alternative.
 - There is an instruction sheet on **(page 27)** on how to wash before surgery
 - **WHEN TO STOP EATING AND DRINKING:** It is important that your stomach is empty before surgery to prevent complications. To ensure your safety please **follow these rules:**
 - **DO NOT EAT** anything after **MIDNIGHT** the night before surgery
 - **ONLY** drink **WATER** and **CLEAR OR YELLOW GATORADE** the night before surgery
 - **DO NOT DRINK** anything for at least **TWO HOURS** before arriving for surgery
 - **A more detailed explanation can be found on (page 28)**
 - **IF YOU HAVE SLEEP APNEA:** Bring your home sleep apnea machine with you to the hospital and tell your anesthesiologist about your sleep apnea.

☐ **WHAT TO BRING TO THE HOSPITAL: (page 26)**

• **BRING THIS BOOK**

- Bring CPAP/BIPAP machine if you use one
- List of your home medications
- Loose fitting, comfortable clothes to wear home & a pair of pajamas
- Socks, underwear and a pair of supportive shoes
- Insurance card & driver's license or photo ID
- Please leave jewelry, valuables and large amounts of money at home

☐ **INSURANCE AUTHORIZATION:** Our office will contact your insurance carrier to get the authorization for your surgery. We will contact you if there is a denial. You can always contact your insurance provider to verify the authorization has been completed.

☐ **ARRIVAL TIMES FOR SURGERY:** You will be given a **TENTATIVE** time to arrive for surgery when your surgery is scheduled. This is subject to change. You will be called by our office day before surgery with the **FINALIZED** arrival time. This time takes into consideration preparation for anesthesia and other necessary preparations in the operating room. Please **BE ON TIME**, late arrivals can delay surgery for your as well as other patients.



Medications to Stop BEFORE Surgery

14 Days before surgery: STOP

Stop all infusions such as:

Remicade & Enbrel – Also stop any medicine taken by mouth for rheumatoid arthritis such as methotrexate

Stop any male or female hormones including creams and patches:

Emcyt – Estraderm – Estratest – Estrace – Estradiol – Estrogens – Ogen – Premarin – Prempro – Testosterone

(you may need to use alternative birth control options during this time)

7 Days before surgery: STOP

Stop all antiplatelet medications:

Aggrenox – Plavix (clopidogrel) – Pletal (cilostazol) – Trental (pentoxil) – Ticlid – Antithrombotics

*(if you have heart stents and take antiplatelets, check with your cardiologist before stopping them)

Stop all diet pills prescribed by a physician:

5 Days before surgery: STOP

Stop all aspirin-containing products such as:

Alka-Seltzer – BC Powder – Bufferin – Disalsid (Salsalate) – Dolobid (Diflunisal) – Ecotrin – Ecedrin – Fasprin – Goody's Powder – Norgesic – Pepto Bismol – Percodan – Uncoated Aspirin

*(if you have heart stents and take antiplatelets, check with your cardiologist before stopping them)

Stop all arthritis pills/non-steroidal anti-inflammatory (NSAID) medications such as:

Advil (ibuprophen) – Clinoril (sulindac) – Lodine (etolodac) – Nuprin (ibuprophen), Aleve (Naproxen) – Daypro (oxaprozin) – Meclomen (meclofenamate) – Orudis (ketoprofen) – Anaprox (naproxen) – Voltaren (diclofenac) = Mediprin (ibuprophen) – Oruvail (ketoprofen) – Ansaid (flurbiprofen) – Feldene (piroxicam) – Relafen (nabumetone) – Athrotec (diclofenac +cytotec) – Motrin (ibuprofen) – Naprelan (naproxen) – Tolectin (tolmetin) – Cataflam (diclofenac potassium) – Indocin (indomethacin) – Naprosyn (naproxen)

****You may CONTINUE to take Mobic (meloxicam) or Celebrex (celecoxib) up to the day before surgery.**

Stop all over the counter medications such as: Vitamins, Herbs and Supplements

A – B – C – E – K – Multivitamins – Fish Oil – Omega 3, 6, 9 – Juice Plus – CoQ10

Echinacea – Ephedra – Garlic – Ginko – Ginseng – Kava – St. John's Wort – Valerian – Saw Palmetto

Glucosamine – Chondroitin – MSM

Stop taking anticoagulants such as:

Coumadin (warfarin), Xarelto (aivaroxaban), Eliquis (apixaban)

*(Discuss "bridge therapy" using lovenox or other short acting anticoagulants with your primary doctor)

Important Note on Medications

You need to talk to your **PRIMARY DOCTOR** about which medications you should stop or continue. If you don't see a medication you are taking on this list, talk to your **PRIMARY DOCTOR** about it. This section is only a guide. Your **PRIMARY DOCTOR** has **FINAL SAY** about which medications to stop or continue.

Medications you may CONTINUE TO USE before surgery:

The NIGHT BEFORE Surgery: TAKE

Tylenol:

You may continue taking Tylenol (acetaminophen) for pain up until the **night before** surgery

Pain Medications:

If you take pain medications (hydrocodone, oxycodone, tramadol, codeine, etc...) you may continue taking them as prescribed until the **night before** surgery

- **Important Note:** taking narcotic pain medications before joint replacement surgery has been shown to **INCREASE** the **PAIN** you experience after surgery.
- **Recommendation:** Dr. Horberg recommends weaning off **ALL** narcotic pain medications before your joint replacement surgery.

Diabetes Medication:

You may take your oral diabetes medication as well as insulin normally the **day before** surgery

DO NOT take your oral diabetes medications the **morning of** surgery

Diuretics & Some Blood Pressure Medications:

Ace Inhibitors (lisinopril, elanapril), Angiotensin Receptor Blockers (losartan, valsartan) You may take these the **day before** surgery

DO NOT take these medications the **morning of** surgery

The MORNING OF Surgery: TAKE

Heart & Blood Pressure Medication:

Anti-Anginal (imdur, isosorbide), Beta-Blockers (Lopressor, coreg), Heart rhythm (amiodarone, digoxin), Statins (lipitor)

Seizure Medications:

You may take all seizure medication the morning of surgery

Asthma Medications:

You may take all asthma medication and inhaled bronchodilators the morning of surgery

Gastric Emptying & GERD:

You may take these medications (Reglan, ranitidine, famotidine, Prilosec, Nexium, etc...) the morning of surgery.

Steroids:

If you take an oral or inhaled steroid, you should take your normal dose the morning of surgery

Diabetes Medication:

DO NOT take **oral** medication or your **short acting** insulin

You **SHOULD** take a **HALF DOSE** of your **LONG ACTING** insulin the morning of surgery

Important Note on Medications

You need to talk to your **PRIMARY DOCTOR** about which medications you should stop or continue. If you don't see a medication you are taking on this list, talk to your **PRIMARY DOCTOR** about it. This section is only a guide. Your **PRIMARY DOCTOR** has **FINAL SAY** about which medications to stop or continue.

Preparing for a Speedy Recovery: Preventing Complications

Preventing Complications: Following these steps will promote healing and help prevent:

- Infections
- Blood Clots
- Pneumonia
- Post-Operative Nausea & Vomiting
- Heart Issues

[1] Exercise: (7 Days Before Surgery)

Engage in physical activity three times a day beginning at least **7 days** before surgery. The stronger you are before surgery, the faster you will recover. **(page 15, 43-47)**

[2] Breathing Exercises: (7 Days Before Surgery)

Practice deep breathing exercises four three times a day beginning at least **7 days** before surgery.

[3] Stop Smoking:

It is not safe to undergo joint replacement surgery if you smoke. Smoking increases your risk of serious medical complications and infection.

[4] Begin Bowel Prep: (7 Days Before Surgery)

- Stool Softeners – You should start taking an **over-the-counter** stool softener **7 days** before your surgery and continue for at least **30 days** after surgery. **(page 23-24, 35)**
- Probiotics – Begin **over-the-counter** probiotic tablets **7 days** prior to your surgery and continue for at least **30 days** after surgery **(page 24, 35)**

[5] Begin Mouth Care: (7 Days Before Surgery)

Begin mouth care including brushing and using mouthwash twice a day at least **7 days** before your surgery.

[6] Begin Antacid Treatment: (7 Days Before Surgery)

- Prilosec (omeprazole) 20mg, one time a day by mouth beginning **7 days** before surgery
- Continue for **30 days** after your surgery or **as long as your take anti-inflammatories** **(page 24, 35)**

[7] Begin Taking Tylenol: (The Night Before Surgery)

- Take 1,000mg Tylenol (acetaminophen) by mouth the night before surgery

Preparing for a Speedy Recovery: Checklist

Place a check mark in the box when you complete an activity

ACTIVITY/FREQUENCY	DAYS PRIOR TO SURGERY							DAY OF SURGERY
--------------------	-----------------------	--	--	--	--	--	--	----------------

Exercise: (3x daily – Start 7 Days Before Surgery)

AM	7	6	5	4	3	2	1	
NOON	7	6	5	4	3	2	1	
PM	7	6	5	4	3	2	1	

Breathing Exercises: (3x daily – Start 7 Days Before Surgery)

AM	7	6	5	4	3	2	1	
NOON	7	6	5	4	3	2	1	
PM	7	6	5	4	3	2	1	

Bowel Prep: (1x daily – Start 7 Days Before Surgery)

STOOL SOFTENER	7	6	5	4	3	2	1	
PROBIOTIC	7	6	5	4	3	2	1	

Mouth Care: (2x daily – Start 7 Days Before Surgery)

AM	7	6	5	4	3	2	1	
PM	7	6	5	4	3	2	1	

Antacid Treatment: (1x daily – Start 7 Days Before Surgery)

PRILOSEC	7	6	5	4	3	2	1	
----------	---	---	---	---	---	---	---	--

Tylenol: (1 dose – The Night Before Surgery)

PM							1	
----	--	--	--	--	--	--	---	--

Preparing for a Speedy Recovery: Preoperative Exercises

Why is Exercise **BEFORE** Surgery Important?

It is important to be as fit as possible before undergoing total joint replacement surgery. This will make your recovery much faster and help you get back to doing what you love to do sooner. A detailed description of some basic upper and lower extremity exercises are included in the **recovery section** of this book. (**Page 43-47**)

Dr. Horberg recommends exercising **2-3 times a day** every day in the weeks leading up to your surgery. The stronger you are before surgery, the faster you'll recover after surgery. In addition to the exercises listed in this book, it is a good idea to go for walks daily to improve your stamina.

Important Note:

ALWAYS speak with your **primary doctor** before starting a new exercise program.

How Much Should I Do?

Exercising for 15-20 minutes 2-3 times a day is a good goal. If this becomes easy for you it is ok to add more. Going for walks before or after your exercises is a good way to add stamina. Each time you exercise do 2-4 sets of each movement for 10-20 reps. Take your time and go slow. If an exercise is too difficult or painful, you can do fewer reps.

Prehab Therapy


Before your surgery you may be scheduled for "prehab" with our physical therapy team so you can learn and practice the exercises you will be doing before and after surgery.

Remember:

Joint replacement is a **team sport** and you are the most important member of that team. We all have to do our part to help you get back to doing what you love to do!

Nutrition



PREMIER 
Bone & Joint Centers
WORTHY OF WYOMING

Foods That Heal

Why Good Nutrition is Important Before & After Surgery:

Good Nutrition is a very important part of your recovery from surgery. A balanced and healthy diet is necessary for proper healing and will help you recover more quickly and comfortably. A well balanced diet needs at least **five (5)** servings of **fruits** and **vegetables** a day.

Your body also needs an adequate amount of **water**. You should try to drink **eight (8)** glasses of water or fruit/vegetable juice every day and most of your liquids should be water. Please limit the amount of caffeinated and sugary fluids. Do not drink alcohol before or after surgery without talking to your doctor first.

If you are diabetic you will need to follow your diabetic diet closely to keep your blood sugars normal. High blood sugar can cause longer healing time or infection.

Protein helps heal wounds. You need to consume enough calories and protein to heal your wounds. Below are a list of foods high in protein. Leading up to surgery and in the weeks following surgery you should at least one protein containing food **every snack or meal**.

Protein: You should try to include a protein with each meal/snack

Meat	Poultry	Fish	Eggs	Milk Products	Cheese
Yogurt	Nuts	Pudding	Beans	Peanut Butter	

About this Nutrition Guide:

Use this section of your joints book as a guide to eating healthfully not only after surgery but in the weeks leading up to surgery. The better your nutrition is **before AND after** surgery the faster and more smoothly you will recover. In this section you will find information about:

- **Heart Healthy Foods:** what foods to build your healthy diet around (**page 18**)
- **Foods with Iron:** foods with iron help your body replace blood lost in surgery (**page 19**)
- **Foods with Fiber:** fiber helps to keep your bowels working and limit constipation (**page 20**)
- **Protein for Healing:** how to make supplemental protein shakes to boost healing (**page 21**)
- **Avoiding Nausea:** what foods to eat and which foods to avoid (**page 22**)
- **Avoid Constipation:** advice on how to avoid constipation after surgery (**page 23**)

Healthy Heart Food Guide

	ANYTIME	SOMETIMES	SELDOME
FRUITS & VEGETABLES 5-9 servings a day Serving Size: 1 Piece Fruit 1 Cup Vegetable or Fruit 3 Cups Salad ½ Cup Starchy Vegetable	Raw Fruits & Vegetables Potatoes: sweet/white Legumes, corn RICH FIBER SOURCES	Dried Fruit – 500 cal per cup Fruit Juice – 4-8oz Avocado/Olives – rich in healthy fats	Coconut French Fries Vegetables with fat Fried Vegetables Scalloped or au gratin potatoes
GRAIN GROUP 4 servings a day Serving Size: 1oz bread or cereal ½ cup rice, pasta 3 cups air popcorn	Whole grain breads, tortillas, cereals, pastas & crackers Brown rice, bulgur, barley, oats, air popcorn RICH FIBER SOURCES	Muffins, bagels, cornbread Granola Cereals Waffles/Pancakes Pretzles Oil popped popcorn	Sweetened cereals Biscuits, doughnuts, croissants Fried Rice Pasta & Rice in fatty sauce Snack crackers
DAIRY GROUP 2 servings a day Serving Size: 8oz/1 cup milk/yogurt ½ cup cottage cheese	Skim, ½%, 1% milk Nonfat yogurt Fat free or 1% cottage cheese Evaporated Skim milk Buttermilk Soy/Rice/Almond milk	2% milk 2% cottage cheese Low fat cheeses Fruit yogurt Frozen yogurt or sherbet	Whole milk, cream Whole milk yogurt Hard processed cheeses or cream cheese Milkshakes, Ice cream Regular cottage cheese
PROTEIN GROUP 2-4 servings a day Serving Size: Varies by protein	Fish & Seafood – 6oz Contain omega 3 fats Poultry – 4oz Without skin Red Meats – 3oz Pork tenderloin – 4oz Egg Whites & substitutes Legumes – ½ cup Beans, lentils, tofu, etc...	Dark meat w/o skin Ground poultry Tuna – oil packed Beef, pork, veal, sirloin, lean ham Canadian bacon Whole eggs Nuts/Seeds – ¼ cup Nut butters – 2 Tbs	Fried fish or chicken Processed poultry – lunch meats, chicken nuggets Fried Meat Chuck or Rib roast Ground beef Pork/Lamb – ribs, chops Bologna, salami, sausage, bacon, hot dogs
FATS, OILS & SAUCES 2 servings a day Serving Size: 1 Tbs oil, mayo, fats	Ketchup, mustard, vinegar, cocktail sauces, barbeque sauce, salsa, pickle relish, fat free salad dressing	Steak sauce, soy sauce, boullion, low calorie margarine or mayo, vegetable oils (olive, canola)	Butter, coconut oil, lard, shortening Stick margarine, mayo Regular salad dressing Creamy sauce/gravy
SWEETS & SNACKS 2 servings a day Serving Size: 1 tsp sugar 1 small cookie	Fruit based snacks Jam, jelly or apple butter	Low fat cakes & cookies, angel food, gingersnaps, graham crackers, fig bars, granola bars	Cookies, cakes, pies, soft drinks, candy bars, chips, donuts

Based on the DASH diet and OmniHeart Studies (JAMA. 2005;294:2455-2464)

Foods Rich in Iron

Grains:	Iron (mg)
Brown rice, 1 cup, cooked	0.8
Whole wheat bread, 1 slice	0.9
Wheat germ, 2 tablespoons	1.1
English Muffin, 1 plain.....	1.4
Oatmeal, 1 cup, cooked.....	1.6
Total cereal, 1 ounce.....	18.0
Cream of wheat, 1 cup	10.0
Pita, whole wheat, 1 slice/piece, 6 ½ inch.....	1.9
Spaghetti, enriched, 1 cup cooked	2.0
Raisin bran cereal, 1 cup	6.3
Legumes, Seeds and Soy:	
Sunflower seeds, 1 ounce.....	1.4
Soy milk, 1 cup.....	1.4
Kidney beans, ½ cup, canned.....	1.6
Chickpeas, ½ cup, canned.....	1.6
Tofu, firm, ½ cup.....	1.8
Soy burger, 1 average.....	1.8-3.9
Vegetables:	
Broccoli, ½ cup, boiled	0.7
Green beans, ½ cup, boiled	0.8
Lima beans, baby, frozen, ½ cup, boiled	1.8
Beets, 1 cup	1.8
Peas, ½ cup frozen, boiled.....	1.3
Potato, fresh baked, cooked w/ skin on.....	4.0
Vegetables, green leafy, ½ cup	2.0
Watermelon, 6 inch, x ½ inch slice.....	3.0
Sample List:	
Blackstrap molasses, one tablespoon	3.0
Dates or prunes, ½ cup.....	2.4
Beef, pork, lamb, 3 ounces	2.3-3.0
Liver (beef, chicken), 3 ounces.....	8.0-25.0
Clams, oysters, ¾ cup.....	3.0
Dark meat turkey, ¾ cup	2.6
Pizza, cheese/pepperoni, ½ of 10 inch pie.....	4.5-5.5

Why Dietary Iron is Important:

Before undergoing a major surgery such as joint replacement, it is important to eat a diet rich in iron. This will help ensure that your body is able to replace any blood lost during surgery and limit the need for transfusions.

Further Ways to Increase Iron:

If your pre-operative or post-operative blood work indicates that your iron or red blood cell counts are low, you may need to take an iron supplement or multivitamin that contains iron. Iron supplements can cause nausea or constipation. These side effects can be prevented by taking them on a full stomach, drinking fluids and eating a high fiber diet.

Fiber Content of Foods

Food	Amount	Fiber (gram)	Food	Amount	Fiber (gram)
Apple	1 medium	3	Cereal, oatmeal	½ cup	4
Apple Juice	1 cup	0	Chickpeas, dried, boiled	½ cup	6
Apricot	3 dried	4.5	Cucumber, sliced	1 cup	<1
Asparagus	6 spears	3	Figs, dry	3 dried	4.5
Avocado	½ medium	2	Flour, buckwheat	½ cup	6
Banana	1 medium	2.5	Flour, white all purpose	½ cup	2
Barley, cooked	1 cup	6.5	Grapes	1 cup	1.5
Beans, black-eyed, cooked	½ cup	4	Kiwi fruit	1 medium	5
Beans, green, cooked	½ cup	1	Lentils, cooked	½ cup	8
Beans, pinto, cooked	½ cup	4	Lettuce	1 cup	1
Beans, kidney, cooked	½ cup	6	Mango, peeled	1 cup	2.5
Blackberries, fresh	½ cup	4	Nuts, almonds, raw	¼ cup	4
Blueberries, raw	½ cup	2	Nuts, peanuts, raw	¼ cup	3
Bread, naan	1 piece	2	Orange	1 medium	3
Bread, rye	1 slice	2	Peach	1 medium	2
Bread, whole wheat	1 slice	2	Pear, with skin	1 medium	4
Bread, white	1 slice	0.5	Peas, cooked	½ cup	3
Broccoli, raw	1 cup	3	Popcorn, air-popped	3 cups	3.5
Cabbage, cooked	½ cup	1.5	Potato, baked with skin	1 medium	4
Cantaloupe	1 cup	1	Potato, sweet	1 medium	4
Carrot, raw	1 cup	4	Rice, brown	1 cup	4
Cereal, Cheerios	1 cup	3	Rice, white	1 cup	1
Cereal, Raisin Bran	1 cup	6.5	Spinach, cooked	½ cup	2

Why Dietary Fiber is Important:

Some of the medications you will be given during anesthesia and for pain after surgery can cause constipation. A diet high in fiber can prevent this. Additionally, some antibiotics that are given to prevent infection after surgery can cause nausea or diarrhea. Along with probiotics, a diet high in fiber can help prevent this.

Amount of Fiber Recommended Daily:

You should consume between 25 and 35 grams of fiber every day. The chart above can help serve as a guide. If you eat 5-6 fruits and vegetables per day you should get 80-90% of your recommended fiber. If you are having difficulty consuming adequate fiber, daily fiber drink mixes can be beneficial:

- Choose a sugar free option such as Metamucil Sugar Free powder
- Many grocery stores and pharmacies have discounted store brand options

Protein Supplementation and Homemade Milkshakes

Instant Breakfast Shake

- 1 envelope instant breakfast, any flavor
- 1 cup low-fat milk
- ½ cup ice cream

Place all ingredients in blender:

Cover and process at high speed until well blended

Makes 1 serving

High Protein Instant Breakfast Shake

- 1 envelope instant breakfast, any flavor
- 1 cup low-fat milk
- ½ cup ice cream
- ¼ cup egg substitute

Place all ingredients in blender:

Cover and process at high speed until well blended

Makes 1 serving

Mocha-Banana Milkshake

- 1 envelope instant breakfast, vanilla flavor
- 1 cup low-fat milk
- 1 small ripe banana
- ½ teaspoon =crushed instant coffee crystals

Place all ingredients in blender:

Cover and process at high speed until well blended

Makes 1 serving

Orange Juice and Cinnamon Smoothie

- 1 envelope instant breakfast, vanilla flavor
- 1 cup low-fat milk
- 3 tablespoons thawed frozen orange juice concentrate
- 1/8 teaspoon ground cinnamon
- 6 ice cubes

Place all ingredients in blender:

Cover and process at high speed until well blended

Makes 1 serving

Why Dietary Protein is Important:

Your body needs protein in order to heal from surgery. All patients undergoing major surgery such as a total joint replacement need to eat a diet high in protein before and after surgery.

Further Ways to Increase Protein:

If you are not eating well you may need to add a high calorie, high protein shake into your meal plan. You can buy already prepared nutritional supplements or you can make your own. Here you can find some sample recipes. If you have diabetes, use no sugar added instant breakfast.



Nutritional Advice to Avoid Nausea

Although rare, nausea can happen after surgery. Please follow these steps to keep nausea from occurring. We have tailored the medications we use for anesthesia and pain control specifically to minimize the risk of nausea

Tips to Reduce Nausea after Surgery:

- Avoid cooking foods with strong smells. Foods that are cold or at room temperature tend to have fewer odors.
- Dry, starchy, or salty foods such as pretzels, saltines, or potatoes are good to try while nauseated.
- Eat small amounts of food more often instead of large meals.
- Try to relax if you become nauseated. Try deep breathing, meditation, resting, and/or distracting yourself.
- If you feel nauseated, it is best to avoid the following types of food:
 - High fat or fried foods
 - Foods with strong odors
 - High fiber foods
 - Foods that give you gas

If You Have Nausea or Vomiting at Home:

- If you experience vomiting at home, please follow these tips:
- Slowly add foods back into your diet.
- Start with sucking on ice chips.
- You may begin to eat/drink small amounts of clear liquids such as broth, apple juice, or gelatin.
- Once you have gone at least eight (8) hours without vomiting, you may start trying solid foods.
- Solid foods to try when vomiting stops:

-Apple Sauce -Banana -Dry Toast -Potatoes -Rice -Sherbet
-Baked Chicken -Crackers -Eggs -Pretzels -Rice Cereal -Yogurt

Avoiding Constipation

What is Constipation?

Constipation occurs when a person has three or fewer bowel movements in a week. It may be difficult or painful to pass stool. The stool may be hard and dry and you may feel full or uncomfortable. Not everyone has a bowel movement every day. Bowel habits vary from person to person. The number of bowel movements you have may depend on what types of food you eat, the medication you are taking, how much exercise you get and other factors.

What Can I Do to Help Prevent Constipation?

- **Eat more fiber:**
Fiber helps form soft, bulky stool making it easier to have a bowel movement. Add fiber slowly to your diet to allow your body to get used to it. Please see the “Foods Rich in Fiber”
- **Exercise:**
Walking 20 to 30 minutes a day will help keep your bowel movements regular.
- **Drink plenty of water and/or fruit and vegetable juice:**
This will help keep the stool soft and easy to pass. Avoid caffeine and alcohol as they can dry out your digestive system.
- **Laxatives:**
Laxatives can be useful for a limited time. They can be addictive when used long-term so use them sparingly.

Home Routine to Prevent Constipation after Surgery:

Buy these items ahead of time and keep them on hand:

- **Stool Softener:** take **every day** while on pain pills
 - Docosate (Colace)- 100mg 2 tabs by mouth twice daily w/ 8oz of water
- **Stimulant Laxative:** if no bowel movement by **day two & three**
 - Biscodyl (Dulcolax)- 10mg tab by mouth 1-2 times daily
- **Osmotic Laxative:** if no bowel movement by **day four**
 - Milk of Magnesia- 30mL liquid by mouth 1-2 times daily -or-
 - Miralax- 17g packet w/ 8oz of water by mouth once daily
 - Magnesium Citrate- 240mL by mouth once daily
- **Suppository:** if no bowel movement by **day five & six**
 - Dulcolax- per rectum once a day

Notify your Physician: if your bowel habits change (such as diarrhea), or if you are **unable to pass stool** for **SEVEN (7)** days after surgery.

Grocery List for Before Surgery

MANDATORY Over the Counter Medications to Purchase:

- 1. Probiotic:** (over-the-counter)
 - Buy enough for **8 weeks**
- 2. Stool Softener:** (over-the-counter Colace or Surfax)
 - Buy enough for **8 weeks**
- 3. Stimulant Laxative:** (over-the-counter Dulcolax)
 - Buy enough for **1 week** if needed
- 4. Osmotic Laxative:** (over-the-counter)
 - Buy enough for **1 week** if needed
 - Milk of Magnesia, Miralax, Magnesium Citrate
- 5. Suppository:** (over-the-counter Dulcolax)
 - Buy enough for **1 week** if needed
- 6. Prilosec:** (over-the-counter)
 - Buy enough for **8 weeks**
- 7. Lotion w/ Vitamin E:** (over the counter)
 - Any brand of non-scented lotion will work

PLAN AHEAD

Planning ahead can make your recovery much easier. Dr. Horberg recommends doing enough shopping before surgery so that you don't have to go to the store for the first week after surgery. This guide covers the medications and supplements **you will need to purchase before your surgery** as well as other suggestions to help make your recovery smoother. The items on this list are **NOT included** in the prescriptions you will get from the office.

OPTIONAL Supplements to Purchase:

- 1. Fiber Powder:** (over-the-counter)
 - Sugar free Metamucil or generic equivalent
- 2. Protein Smoothie Drinks:** (over the counter)
 - Low Sugar Ensure, Boost or generic equivalent

SUGGESTION Prepare 3-5 Days of Meals

Purchasing food in advance and preparing meals before your surgery will make your first couple days of recovery much easier. Choose healthy foods from the nutrition section.

FOODS THAT HEAL:

Use this area to take notes on healthy foods that you would like to stock up on:

The Day of Surgery



PREMIER 
Bone & Joint Centers
WORTHY OF WYOMING

The Night Before Surgery

Last Minute Reminders

- Nothing to Eat:** no food after **MIDNIGHT**
- You CAN Drink:** you may drink water or electrolyte drink until **2 HOURS** before surgery
 - See Section on **ERAS** liquid protocol ([Page 28](#))
- Brush Your Teeth:** you can brush your teeth and rinse with water
- Preoperative Scrub:** scrub your leg/arm using special soap as outlined in bathing section
- Remove Nail Polish:** remove all nail polish to facilitate use of oxygen measuring devices
- Arrange Help:** you will need someone to **drive you home** after surgery and someone to **stay with you** for the first couple days after surgery. **This needs to be arranged in advance!**
- Shopping List:** a list of things you will need prior to your surgery is found on ([page 24](#))

What To Pack

- Bring THIS BOOK with you**
- Bring CPAP/BIPAP machine if you use one
- List of your home medications
- Loose fitting, comfortable clothes to wear home & a pair of pajamas
- Socks, underwear and a pair of supportive shoes
- Insurance card & driver's license or photo ID
- Please leave jewelry, valuables and large amounts of money at home

One Last Look Around the House

- Fall Prevention:** clear walking paths & hallways of clutter, rugs, end tables, cords, etc...
- Pets:** make sure you have a plan for ensuring your pets are taken care of
 - **DO NOT** let your pets sniff, lick, scratch or touch the extremity you had surgery on
- Meal Prep:** make sure you have groceries ready to make healthy meals after surgery
 - You may want to consider preparing several meals beforehand
- Plan Your "Spot":** put frequently used items (remotes, books, computers, chargers) near your favorite, supportive chair within easy reach
- Single Level Living:** if possible, try to arrange your home so that you can live on one level and avoid stairs while you recover
- Ice Pack:** make sure to put an ice pack or two in the freezer so it is ready when you return home. If you don't have an icepack, frozen vegetables work well.

Preoperative Bathing Instructions

Why Bathing with a Special Soap Before Surgery is Important:

The Centers for Disease Control (CDC) strongly recommends that patients shower or bathe with an antiseptic agent the day before joint replacement. Research has shown that this helps to **REDUCE** the risk of **INFECTION** after joint replacement.

Bathing Instructions:

- **Timing:** Take one shower/bath the **NIGHT BEFORE** AND take a second shower/bath the **MORNING OF** your surgery.
- **Special Soap:** Use the **HIBICLENS** soap our office provides you with.
 1. **Rinse:** rinse your body thoroughly with water
 2. **Soap:** apply Hibiclens soap liberally and scrub your whole body gently
 - Pay extra attention to your groin, arm pits, hands feet, belly button
 - Pay extra attention to the place where your incision will go
 3. **Allow Soap to Set:** allow Hibiclens to remain on skin for **2 minutes**.
 - You may need to turn the shower water off during this time
 4. **Rinse:** thoroughly rinse off your body and all soap
 5. **Dry:** dry gently with a towel.

Special Instruction:

- **Do Not Shave:** do not shave anything lower than your face before surgery, this can increase your risk of infection
- **Do Not Wear:** powders, deodorant, perfumes or lotions before surgery
- **Wear:** wear freshly cleaned pajamas and sleep on clean sheets the night before surgery
- **Shower Again:** do not forget to shower and use Hibiclens again the morning of surgery
- **Wear:** wear freshly washed, comfortable clothing to the hospital on the day of surgery

Warning:

- **Allergy:** tell our office team if you are allergic to chlorhexidine gluconate or hibiclens
- **Do Not Use:** on head, face or open wounds & keep out of eyes, ears and mouth
- **Do Not Ingest:** for external use only
- **Stop Using:** if rash or allergic reaction occurs
- **Rinse with Water:** if soap gets in eyes or ears rinse with cool, clean water

Enhanced Recovery After Surgery (ERAS)

What is **Enhanced Recovery After Surgery** (“ERAS”)?

ERAS protocols are being adopted in total joint replacement centers across the United States. This protocol includes a plan for the patient to consume an electrolyte containing “sports drink” (like gatorade) which helps restore your body’s electrolytes when you are fasting prior to surgery. Studies have demonstrated many benefits including:

- Improves comfort before and after surgery
- Prevents dehydration
- Prevents post-operative nausea and vomiting
- Reduces the body’s reaction to surgical stress

Rules for Eating and Drinking Before Surgery

- **STOP EATING:** no food after **MIDNIGHT** the night before surgery
- **STOP DRINKING:** no liquids at all beginning **TWO HOURS** before surgery
- **YOU MAY DRINK:** clear liquids (**WATER** or **CLEAR GATORADE**) until **TWO HOURS** before arriving to hospital or surgery center

What Liquids Can I Drink During This Time?

Sports Drink: **CLEAR** or **YELLOW** colored **GATORADE** is safe to drink the evening/night before surgery.

- Clear Gatorade is preferred
- No carbonated drinks, caffeine or alcohol
- No milk, juice, or other opaque beverages

How Much Can I Drink?

- **The Night Before Surgery:** up to **24oz**
- **The Morning of Surgery:** up to **12oz**

For Diabetics:

- **Diabetics:** **LOW SUGAR** (not no sugar) Gatorade (**G2O**)
- **Non-Diabetics:** normal sugar Gatorade

The Morning of Surgery

What to Expect

- **Arrival:** please get to the hospital or surgery center **ON TIME**. Being late will delay your surgery as well as others.
- **Family:** your family will be shown where they can wait in the surgical waiting area.
- **Preparation For Surgery:** you will be prepared for surgery by the nursing and anesthesia staff. This includes starting IVs, preparing/shaving the operative extremity, giving medication and blood clot prevention etc...
 - This can take **2-3 hours**
- **Family Updates:** the OR staff will let your family know when surgery starts and is completed. Dr. Horberg will update your family after surgery as well.
- **Recovery:** you will recover in the PACU after surgery for a period of time
- **Transfer:** after recovery in the PACU you will be discharged home or transferred to your hospital room



The Afternoon/Evening after Surgery

What to Expect

- **Diet:** advanced as tolerated starting with clear liquids
- **Nursing Checks:** vital signs, movement, sensation, etc...
- **Pain Checks:** use ice often and ask for pain medication if needed
- **Walking:** you will walk with therapy the day of surgery
- **Exercises:** you will do some exercises on your own to prevent blood clots
- **Breathing Treatments:** use your incentive spirometer 10x per hour and cough as needed to clear your lungs
- **Change Clothes:** staff will help you change into the close you will wear home

You May Have Some Equipment Attached to You:

Foot/Leg pumps to prevent blood clots	Bandages or VAC over surgical wound
Compression stockings	Urinary catheter (uncommon)
Pulse oximeter to monitor oxygen levels	IV(s) in your arm for medication
Oxygen if needed	Ice pack over surgical site

Post-Op Day 01

What to Expect if You Stay

Diet: normal solid food diet

Oxygen: pulse oximeter and supplemental oxygen discontinued

Dressings: bandages and dressings may be changed if needed

Physical Therapy: will help you mobilize and instruct you on home exercises

Preparation for Home: have the person who is going to help you at home arrive to the hospital or surgery center by **8:00 am** to participate in therapy and discharge planning

Exercises: continue your exercises on your own between therapy sessions

Breathing Treatments: continue your breathing exercises 10x every hour

Pain Control: we will still manage your pain with ice and various medications

Foot/Leg Pumps: you will still wear your foot/leg pumps while in bed

Visits: you will be visited by nursing, Case Managers, Joint Coordinators, the Hospitalist and other members of the care team

Discharge

Note: **ALL** patients should expect to be discharged either on the **DAY OF** surgery or the **DAY AFTER** surgery. Studies have shown longer hospital stays lead to poorer outcomes.

Everyone Goes HOME After Surgery!

ALL patients go **HOME** after surgery.

You will **NOT** be sent to a rehab facility.

Most patients will **NOT** need a home health nurse or therapist to come to their home.

You **MUST** prepare yourself and your home for recovery from surgery.

You **MUST** arrange for a **friend** or **family member** to stay with you for the first couple days.

This person may need to arrange for travel and/or time off work. **PLAN AHEAD!!**

Your Passport to Discharge Home

FOUR “P”s – Goals for Discharge

P (Pass Urine).....

P (Pass Gas).....

P (Pain Control).....

P (Physical/Occupational Therapy).....

Before You Go Home

We want you to feel safe and confident about going home. Please have your support person present for therapy sessions so they can better understand how to help you at home. Feel free to bring in pictures of how your home is set up so that we can better assist you.

Medical Equipment

If you need a walker or bedside commode during your recovery, our office staff will help you make arrangements. After working with therapy you may find that you need additional equipment to assist you with your activities of daily living (bathing, dressing, etc...). These items can be purchased at most pharmacies, medical supply stores or large retailers like Walmart or Target.

Recovery



PREMIER 
Bone & Joint Centers
WORTHY OF WYOMING

Recovery: What to Expect after Surgery

How Will I Feel?

Even with modern advances allowing for more rapid recovery and outpatient surgery, Joint Replacement is a major operation. After surgery, most patients feel tired, sore and weak. Follow the advice in this book to improve your energy, minimize your discomfort and speed your recovery. **(page 35-36)**

Remember: Dr. Horberg and his Team are with you every step of the way.

Medications:

After your surgery you will need to take several prescription and over the counter medications. These are designed to help keep you safe and comfortable after surgery. It is very important to understand your medication instructions and follow them closely.

NOTE: Some medications/supplements you will need to purchase over the counter from your local pharmacy or convenience store prior to surgery. Some medications will be prescribed the day of surgery. **(page 24, 35)**

Follow-Up Appointments:

Please keep all follow-up appointments. We make these to make sure you are healing properly. Expect to have x-rays at some of these appointments. Avoid clothes with zippers, snaps, or belts that may obstruct x-rays. Please wear loose-fitting clothing so that Dr. Horberg can see your incision. **(page 48)**

Physical Therapy:

Therapy is an important part of recovery. It is very important that you keep your therapy appointments and try your best to participate. How well you feel depends on how much effort you put into your recovery.

Total Knees & Hips: begin outpatient therapy 2-3 days after surgery

Total Shoulders: we will schedule therapy at your first follow up appointment

Ice & Elevation:

Use your ice for at least **20 minutes every 1-2 hours**. Feel free to leave the ice pack on for longer, if needed. You may find you want to elevate your operative leg/arm above your heart to help with swelling.

ADDITIONAL INFORMATION can be found online. See Dr. Horberg's website, social media and YouTube pages for FAQs and more. Addresses and QR codes are found on **(page 2)**.

Recovery: What to Expect after REVISION Joint Replacement

Revision Joint Replacement: is the term we use for surgery to correct a previous joint replacement that has worn out, become infected or otherwise failed. These operations are often more involved than the original surgery and can be more challenging to recover from. Sometimes multiple repeat operations are necessary to correct the problem.

How Will I Feel?

Revision operations are often more extensive than primary joint replacement and can involve more discomfort during recovery. We use a multimodal pain control regiment to keep you as comfortable as possible. **(page 35-36)**

Remember: Dr. Horberg and his Team are with you every step of the way.

How Long Does Recovery Take?

As with most surgeries, everyone recovers at their own pace. With revision surgery, it becomes even harder to predict your recovery. Most patients take a bit longer to recover fully than they did following their original joint replacement. **Incisions can take longer to heal** as well. Do not be alarmed, **bleeding from the incision** can take **1-2 weeks** to completely stop.

What Restrictions are There?

Following revision surgery, you may need to use assistive devices such a crutches or a walker for an extended period of time. You may have weight bearing or activity restrictions. You may also need to wear a protective brace, immobilizer, pillow, etc... These restrictions will be based on **what needs to be done in surgery**. You will **receive final instructions after surgery**.

YOUR RESPONSIBILITIES

Successful recovery from revision surgery is more involved and requires you to **follow your instructions diligently**. While recovery can be burdensome, **your outcome** depends on following the instructions and plan set out by Dr. Horberg and his team.

- Take all **medications as prescribed**, many are vital to prevent complications.
- Abide by your **post-op restrictions** and be diligent with your **therapy**.
- You may need to see **other doctors/specialists** as you recover, **do not miss these visits!**
- You may need repeated labs, imaging or other tests, **please do this in a timely fashion!**

SETTING EXPECTATIONS While we make every attempt to achieve a “**forgotten joint**” after revision surgery, **repeated operations are unpredictable**. Depending on the reason for the revision and the damage we need to repair, some patients may have discomfort or functional limitations that **may not ever completely resolve**.

Recovery: Post-Op Medications

Prescriptions

Pain Medicines: Most patients receive two different types of pain medications. These should be alternated with one another. These medications are **quite strong** and should only be taken **sparingly**. You should try to **wean yourself** from these **as soon as you are able**.

Anti-Inflammatories: Most patients will receive 30 days of either Celebrex or Meloxicam. These help limit inflammation which can cause pain. They also help prevent abnormal bone growth called heterotopic ossification after surgery. **Take these for at least 30 days.**

Steroids: These medications are used to limit inflammation, nausea and pain after surgery. Most patients will take Decadron or a similar steroid for two days after surgery.

Take all pills as prescribed.

Blood Thinners: These are used to prevent blood clots after surgery. Most patients will be treated for 30 days. Blood thinners will be selected based on each patient's individual risk and medical history.

Take all pills as prescribed.

Antibiotics: Some patients may be prescribed an antibiotic after surgery. This is based on the type of procedure they are having and their individual risk factors. **Take all pills as prescribed.**

Over The Counter

Probiotic: (any brand) Several of the medications you may take for surgery can cause changes in your bowel habits. Probiotics help to limit this.

Begin **7 days before surgery** and continue for **30 days after surgery**.

Stool Softener: (Colace or Surfac) These medications help prevent constipation that can be caused by pain medications or surgical anesthetics. **(page 23)**

Begin **7 days before surgery** and continue for **30 days after surgery**.

Stimulant Laxative: (Dulcolax) Use as directed if constipated. **(page 23)**

Osmotic Laxative: (Milk of Magnesia, Miralax) Use as directed if constipated. **(page 23)**

Suppository: (Dulcolax) Use as directed if constipated. **(page 23)**

Prilosec: (or generic omeprazole) this will help prevent acid reflux and ulcers while taking anti-inflammatory medications.

Begin **7 days before surgery** and continue for **30 days after surgery**.

Lotion w/ Vitamin E: (any brand, unscented) begin massaging into incision after your dressing is removed at your three week follow-up appointment. This will help your incision heal more quickly and minimize the appearance of the scar.

Recovery: Pain Management

Ice:

Use your ice packs for **20 minutes** every **1-2 hours** until you are no longer having pain. Ice is a great tool to limit both **PAIN** and **SWELLING**. Investing in an ice pack is well worth it.

Movement:

Do not be afraid to get up and walk or change positions while lying down or seated in a chair. Elevation can be very helpful as well.

- Remember – no pillows under your surgical knee for knee replacements!

Relaxation and Distraction Techniques

Sometimes focusing your energy on something else will help lessen the pain you are experiencing. Now is a great time to try meditation, deep breathing exercises, coloring, or using guided imagery or relaxation. You can find guided meditation videos on YouTube.

Medications

We will send you home with a variety of medications to help treat your pain after surgery. These include: Tylenol (acetaminophen), anti-inflammatories like Mobic (meloxicam) or Celebrex (celexicob), and opioid medications such as Roxicodone (oxycodone) or a combination medication called Norco (hydrocodone with acetaminophen). What are these medications for? (**page 35**)

- **Tylenol** – this medication helps treat **pain**. You will be taking this medication on a schedule. You will take it three times a day at home.
- **Mobic or Celebrex** – these medications help treat **inflammation**. Less inflammation will lead to less pain. You will take this medication on a schedule. Typically one time per day.
- **Norco or Percocet** – these are opioid medications used for **pain** control. These medications are quite strong so it is important to take them **only as needed**. To limit some of the side effects of these medications, we recommend that you always take them with a snack.

To make sure you stay safe at home, remember that as needed medications are **NOT** taken on a set schedule. This means **DO NOT** set an alarm for these medications. Please **DO NOT** allow your support person to wake you up to give you medication. It is important that **YOU**, the patient, are always awake and able to talk to your support person before taking your opioid medication.

Some pain after surgery is **NORMAL**, we will do our best to help keep your pain manageable

Recovery Timeline: “When Can I...?”

Bandages

Outer Bandage: (Mepilex) Remove this bandage **7 DAYS** after surgery

Lower Bandage: (Prineo) Keep this bandage in place until your **FOLLOW UP APPOINTMENT**

Note: Both bandages are **WATERPROOF** and safe to shower with

Bathing

Shower: You can shower starting **4 DAYS** after surgery

Bath: You can take a bath starting **4 WEEKS** after surgery

Swimming: You can submerge your incision in a pool starting **4 WEEKS** after surgery

Activities & Exercise

Walking: You can begin walking on the **SAME DAY** as surgery

Stairs: You can begin doing stairs on the **SAME DAY** as surgery

Stretching: You can begin gentle range of motion exercises the **SAME DAY** as surgery

Strengthening: You can begin light weight or body weight exercises the **SAME DAY** as surgery

Vigorous Exercise: You can begin easing into weight lifting, circuit training, yoga, pilates, mountain biking and other more vigorous exercises **6 WEEKS** after surgery

- Consult with your primary doctor before starting a new exercise program

Running/Jumping: Implant manufacturers do not recommend running or other high impact activities after joint replacement in order to avoid fractures or implant failure

- If you choose to pursue these activities, please wait **6 MONTHS** after surgery

Driving

Requirements:

- You must be **OFF** all narcotic **PAIN MEDICATIONS** before you can drive
- You must be able to **SAFELY** operate your vehicle without pain

Timeline: Most **HIP** and **KNEE** patients can drive between **4-6 WEEKS** after surgery

Return to Work

Manual Labor: Most patients return to physical work **8-12 WEEKS** after surgery

Light Duty: Most patients can return to desk or light duty work at **4-6 WEEKS** after surgery

Recovery: “Doc, Is this Normal...?”

Total Joint Replacement is a major operation. While advances in surgical techniques and anesthesia have dramatically improved our patients experience in recent years, everyone recovers at a different pace. You may experience some of the below during your recovery.

Incisions & Skin

Bruising: this can extend throughout the entire extremity but usually resolves in 2-3 weeks.

Swelling: in both arms or legs is normal. It may swell so much early on that putting shoes/socks on becomes difficult. This can come and go for up to a year after surgery.

Redness/Warmth: healing tissue can cause warmth & redness for few months after surgery.

Bleeding/Oozing: this is normal in the first 1-2 weeks after surgery. Don't be alarmed, just cover the incision with a clean bandage to protect your clothing. This can be more pronounced after a **revision joint replacement** but will typically stop with time.

Pain & Other Sensations

Pain: we do everything we can to minimize your discomfort after surgery. Nevertheless, pain is a part of recovery. Everyone recovers at their own pace.

Numbness/Tingling: around the incision is normal. This usually improves with time but there will always be some residual numbness in some places.

Sounds: a prosthetic joint can make noise as you move. This usually gets less pronounced with time but is a normal part of joint replacement surgery.

Clicks & Clunks: As your joint replacement heals, feeling clicks, clunks and pops is normal. Tissues thicken and remodel as they heal and can catch or snap over each other. This can sometimes cause brief pain that typically goes away quickly.

Strength, Endurance & Function

Strength/Endurance: feeling weak and fatigued after surgery is normal, your strength and stamina will gradually improve with time

Stiffness: scar tissue and swelling can make a new joint feel stiff. It is important to be diligent with your therapy and home exercises to avoid permanent stiffness.

Daily Activities: walking distances, getting in and out of chairs or the car, going up and down stairs and other daily activities may be a challenge at first. This improves with time.

DON'T WORRY: Recovery is **NOT** always a linear process. You may have good days and bad days, this is **NORMAL**. With time, most unpleasant sensations gradually disappear.

NOTE: If you are concerned about your new joint, call our office, ask for **TEAM HORBERG** and we can answer your questions or arrange an appointment to re-evaluate you.

Preventing Blood Clots

Blood Thinners: you will get a blood thinner based on your medical history and risk for getting a blood clot after surgery. We typically use one of two different blood thinners.

- **Low Risk Patients:** aspirin 81 mg twice-a-day after surgery
- **High Risk Patients:** you may get stronger medications such as, Coumadin (warfarin), Eliquis, or Lovenox. If you are already on a blood thinner you may be asked to resume this on the first day after surgery.

Please **avoid** the following while on your blood thinner:

- Alcohol
- Arthritis medications – ibuprofen, Aleve (naproxen), etc.
- Over-the-counter medications – unless Dr. Horberg & your primary doctor say its ok

Please contact your **primary doctor** if you experience any of the following symptoms:

- Bleeding that does not stop after a cut
- Nosebleeds
- Throwing up blood
- Dark brown urine
- Red or black streaks in stool.

Walking & Exercise: this is the **best** way to prevent a blood clot after surgery. Please take a short walk break every 1-2 hours while awake and do your home exercises.

Signs/Symptoms of a Blood Clot:

While this is rare, please report the below symptoms to your **primary doctor immediately** after you notice them. Remember that blood clots can happen in either leg/arm after surgery.

- Swelling in the leg/arm that looks worse in the morning
- Sharp, constant pain in the calf muscle or whole leg – usually increases with movement
- Hot, tight, and/or burning sensation in legs/arms
- Dark redness at or below the affected area

If you develop chest pain or shortness of breath, call 911 IMMEDIATELY.

Preventing Infections: Antibiotic Guidelines for Life

VERY IMPORTANT: from the date of your joint replacement through the **REST OF YOUR LIFE**, you will need to take **ANTIBIOTICS** before **ALL** dental **procedures** or **cleanings**. Please share this information with your dentist and primary doctor.

Oral Antibiotics: most patients will take their antibiotics by mouth

- Take the antibiotic **ONE HOUR** before your cleaning or procedure
- **Augmentin:** (amoxicillin/clavulonate) 875/125 milligrams
- **Keflex:** (cefalexin) 2 grams

IV Antibiotics: some patients may need to take their antibiotics by IV

- Take the antibiotic **ONE HOUR** before your cleaning or procedure
- **Ancef:** (cefazolin) 2 gram
- **Amoxicillin:** (amoxicillin) 1 gram

Patients with Allergy to Penicillins or Cephalosporins:

- Take the antibiotic **ONE HOUR** before your cleaning or procedure
- **Cleocin:** (clindamycin) 600mg

ROUTINE DENTAL CARE: Wait **SIX (6) MONTHS** after your joint replacement surgery to see your dentist for routine checkups or teeth cleaning.

EMERGENCY DENTAL CARE: if you have an unexpected problem such as bleeding gums, tooth pain, broken tooth, loose tooth or filling or dental infection, **CALL** our office **BEFORE** seeing your dentist for specific antibiotic recommendations.

IF YOU ARE HAVING SURGERY: most surgeries require pre-operative antibiotics. Be sure to **tell your surgeon** that you have a joint replacement and will **require an antibiotic** before surgery. Contact our office if there are any issues or concerns.

IF YOU FEEL SICK: contact your **primary doctor** for proper treatment. Infections in other parts of the body can cause joint infections.

IF YOUR NEW JOINT HURTS: if you are worried about your new joint, **call our office** for an appointment. **NEVER** let another doctor stick a needle in your new joint

How to Identify and Manage Complications if they Occur

Complications after total joint replacement are rare but can occur. Most complications are minor and require only time or minor treatment to heal. Occasionally severe or life threatening complications can occur and it is important to know how to spot them.

Call Dr. Horberg's Office if you have:

Pain: call us first if you have pain in the **HIP, KNEE or SHOULDER**.

Redness/Swelling: call us first if the skin around your incision is red or swollen

Bleeding: some bleeding is **normal** after surgery. If the bleeding won't stop after multiple dry dressings, call our office

Drainage: white/yellow/green drainage from the incision can be a sign of infection, call our office for further instructions

Wound Opening: if your wound starts to open up, call our office for further instructions.

Call Your Primary Doctor's Office if:

You Feel Ill: if you feel ill after surgery, call your primary doctor for instructions or to schedule a visit.

Go to the Emergency Room if you have:

[1] **CHEST PAIN:** chest pain can be a sign of a heart problem or pulmonary embolus

- **CALL 911 or GO to ER IMMEDIATELY**

[2] **SHORTNESS OF BREATH:** shortness of breath can be a sign of a heart problem, lung problem or pulmonary embolus

- **CALL 911 or GO to ER IMMEDIATELY**

[3] **SUDDEN FACIAL DROOP, WEAKNESS or SLURRED SPEECH:** sudden weakness in one side of your body, facial drooping or slurred or garbled speech can be a sign of a stroke

- **CALL 911 or GO to ER IMMEDIATELY**

FOR MOST PROBLEMS: It is best **NOT** to go to the emergency room or your primary doctor. The doctors in the emergency department and your primary doctor are **NOT SURGEONS** and are not as familiar with managing joint replacement as we are. For most problems related to your **HIP, KNEE or SHOULDER** it is best to call the **PREMIER BONE & JOINT CENTERS** first.

Speedy Recovery: Postoperative Nutrition

Why is Nutrition Important After Surgery?

Your diet before and after surgery plays a **very** important role in how well your body is able to **heal** after surgery. It is important to continue your total joint diet after surgery in order to achieve the best outcome. You can continue to use the **NUTRITION** section of this book as a guide. **(page 16-23)**

- **Protein:** your body needs dietary protein to heal. If you are having a difficult time eating enough protein consider supplementing with smoothies. **(page 21)**
- **Fiber:** fiber is important to keep help your bowels work after surgery. Some medications used for pain or anesthesia can slow your bowels down. Fiber helps with this. **(page 20)**
- **Iron:** your body needs iron to replace the blood that is lost in surgery and to help continuously make new healthy blood. **(page 19)**
- **Fruits/Veggies:** your body needs healthy calories as well as vitamins and minerals found in fruits and vegetables to help heal and to limit inflammation/pain after surgery.

What Should I Avoid?

Tobacco: smoking or using other tobacco products (smokeless or vaporized tobacco) is very detrimental to healing after surgery. If you were a former smoker and quit before surgery, **congratulations!** Do not start using tobacco after surgery as it can also increase your risk of infection.

Sweets/Sugars: foods and snacks high in sugar provide no meaningful nutrition for healing and can cause you to gain weight. Gaining weight can **impair your healing** and increase your risk of infection. High blood sugar in diabetics can also increase the **risk of infection**.

Alcohol: it is **NOT SAFE** to consume alcoholic beverages while you are taking pain medication. After you have completely discontinued taking your pain medications, it is best to limit alcohol intake from a general health standpoint. Ask your primary physician what current guidelines suggest.

Speedy Recovery: Postoperative Exercises

Staying Fit: the best way to ensure a speedy recovery is to stay fit and active. It is best to start a simple walking program and home exercises **BEFORE** surgery to help you recover faster. In this section you will find a list of exercises that you will need to do **BEFORE AND AFTER** surgery. Video demonstrations can be found on Dr. Horberg's YouTube Page. You should start these exercises **SEVEN (7) DAYS** before surgery and continue throughout your recovery.

HOME EXERCISE PROGRAM:

- You should plan to do your exercises **2-3 times each day** while your recover
- Break each exercise into **2-4 sets** of **10-20 repetitions** each

GETTING STARTED:

- You may need to build up your strength and endurance to reach these goals, **that's ok!**

AS YOU PROGRESS:

- Your physical therapy team will make changes and add exercises to your plan
- Your physical therapy team will tailor **your plan** to **your specific needs** as time goes on

Supine Ankle Pumps

Setup: Begin lying on your back with your legs straight.

Movement: Slowly pump your ankles by bending and straightening them. Repeat.

Tip: Keep legs relaxed while you move your ankles.



Supine Quadriceps Sets (Knee Push Downs)

Setup: Begin lying on your back with your legs straight.

Movement: Gently squeeze your thigh muscles, pushing the back of your knee down into the floor or bed. Hold for 2-3 seconds. Repeat.

Tip: Keep your back flat against the floor or bed during exercise.



Supine Gluteal Sets (Bottom Squeezes)

Setup: Begin lying on your back with your legs straight.

Movement: Gently squeeze your buttocks muscles. Hold for 2-3 seconds. Repeat.

Tip: Keep your back flat against the floor or bed during exercise.



Supine Short Arc Quadriceps

Setup: Begin lying on your back with a rolled up towel under your knee and your heel resting on the ground.

Movement: Tighten the muscles in your upper leg to straighten your knee. Hold for 2-3 seconds then return to starting position. Repeat.

Tip: Keep your low back flat on the ground while doing the exercise.

STEP 1



STEP 2



Seated Long Arc Quadriceps

NOTE: After surgery, do not restart this exercise until told to by therapy or Dr. Horberg.

Setup: Begin sitting upright in a chair.

Movement: Slowly straighten one knee so that your leg is straight out in front of you. Hold for 2-3 seconds then slowly return to starting position. Repeat.

Tip: Keep your back straight during the exercise.

STEP 1



STEP 2



Supine Heel Slides

NOTE: After surgery, do not restart this exercise until told to by therapy or Dr. Horberg.

Setup: Begin lying on your back with your legs straight.

Movement: Slowly slide one heel along the ground toward your buttocks until you feel a stretch in your knee or upper leg. Now slide it back to the starting position. Repeat.

Tip: Make sure not to arch your low back or twist your body as you move your leg.



Supine Hip Abduction/Adduction

NOTE: After surgery, do not restart this exercise until told to by therapy or Dr. Horberg.

Setup: Begin lying on your back with your legs straight.

Movement: Slowly move one leg out to the side as far as you can without bending at your side then return to the middle. Repeat.

Tip: Make sure to keep your heel on the ground during the whole movement.



Short Range Straight Leg Raise

Setup: Begin lying on your back with one knee bent and the other leg straight.

Movement: Tighten your abdominal muscles and lift your straight leg a foot off the ground. Now lower the leg back down. Repeat.

Tip: Keep your low back flat on the ground and your knee straight.

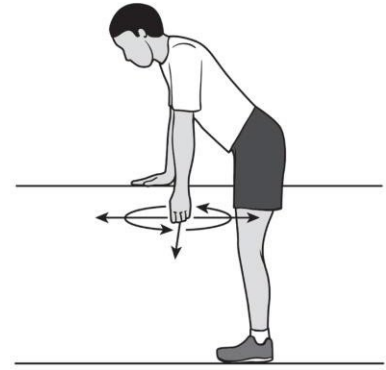


Shoulder Pendulum Swings

Setup: Begin standing and lean forward. Place one hand on a counter or table for support. Let the arm being exercised hang free.

Movement: Slowly swing your arm forward and back and then in clockwise and counterclockwise circles. Repeat.

Tip: Do not round your back or lock your knees. Start with no weight and add small amounts of weight as needed.



Elbow Flexion

Setup: Begin standing tall with feet shoulder width apart and hands at side

Movement: Slowly bend your elbow up to your shoulder and hold for two seconds at the top then slowly lower your hand. Repeat.

Tip: Keep your elbows close to your body and don't move too quickly. Start with no weight and add small amounts of weight as needed.



Elbow Extension

NOTE: After surgery, do not restart this exercise until told to by therapy or Dr. Horberg.

Setup: Begin standing tall with feet shoulder width apart. Raise the arm being exercised with your elbow bent behind your head. Support this arm with the opposite hand.

Movement: Slowly straighten elbow and hold for 2-3 seconds at the top then slowly you're your elbow. Repeat.

Tip: Keep your abdominal muscles tight and do not arch your back



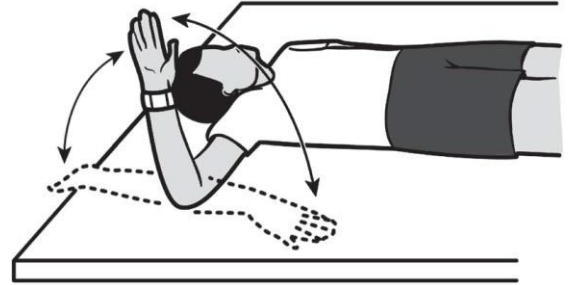
Internal & External Rotation

NOTE: After surgery, do not restart this exercise until told to by therapy or Dr. Horberg.

Setup: Begin lying on your back on the floor or a bed with your arm straight out to the side and your elbow bent to 90°

Movement: Slowly bring your hand to the floor palm down then up and over until the back of your hand touches the floor. Repeat.

Tip: Keep your elbow bent and on the floor. If you have pain, straighten your elbow a bit.



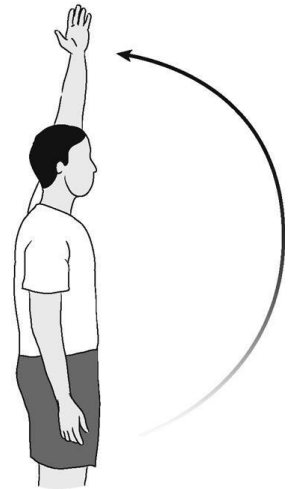
Shoulder Forward Flexion

NOTE: After surgery, do not restart this exercise until told to by therapy or Dr. Horberg.

Setup: Begin standing tall with feet shoulder width apart and hands at side

Movement: Slowly raise your arm forward with your elbow straight. Hold for 2-3 seconds at the top then slowly lower your hand to your side. Repeat.

Tip: Keep your elbow straight and move slowly. Start with no weight and add small amounts of weight as needed.



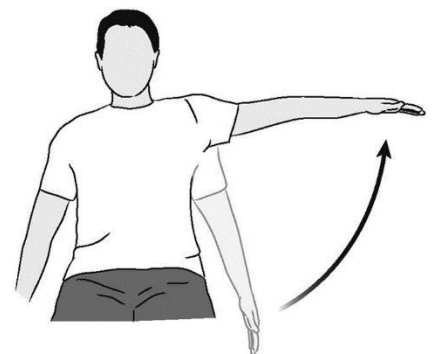
Shoulder Abduction

NOTE: After surgery, do not restart this exercise until told to by therapy or Dr. Horberg.

Setup: Begin standing tall with feet shoulder width apart and hands at side

Movement: Slowly raise your arm to your side with your elbow straight. Hold for 2-3 seconds at the top then slowly lower your hand to your side. Repeat.

Tip: Keep your elbow straight and move slowly. Start with no weight and add small amounts of weight as needed.



Long Term Follow Up Care Plan

Three Weeks After Surgery: Wound Check

- Evaluate wound healing and early postoperative range of motion
- We will remove your lower dressing at this visit
- Review X-Rays to assess component position

Six Weeks After Surgery: Function Check

- Evaluate functional status, range of motion and early recovery
- Review medications and rehabilitation goals
- Discontinue most perioperative medications
- Resume most activities

Six Months After Surgery: Function Check

- Evaluate functional status, range of motion and progress with rehabilitation
- This visit is OPTIONAL
 - If you are doing well at six weeks we can forgo this appointment
 - If you are scheduled for an appointment but are doing well you can call in and cancel this appointment

One Year After Surgery: Graduate from Recovery Phase

- Evaluate functional status, range of motion and activity level
- Review X-Rays to confirm stable implant position

Every 1-5 Years After Surgery: Long Term Surveillance

- Evaluate functional status, range of motion and activity level
- Review X-Rays to confirm stable implant position
- We can be flexible in scheduling these visits to fit your schedule and lifestyle

LONG TERM FOLLOW UP:

Dr. Horberg believes it is important to keep in touch with his total joint patients long term. Often, small issues with a joint replacement can be identified and treated before they become major problems. After you have recovered from surgery we can spread out follow up visits to suit your schedule but we are always here for you.

Dr. Horberg will always be your joint replacement specialist and he is happy to keep an eye on joints you may have had performed by other surgeons as well.

Quick Reference: Pre-Operative Checklist

Important Dates & Appointments

- Pick Surgery Date Date/Time _____
- Arrange Medical Clearance (Primary Doctor)..... Date/Time _____
- Arrange Specialist Clearance Date/Time _____
- Arrange Dental Clearance..... Date/Time _____
- Scheduled Joint Bootcamp Class.....Date/Time _____
- Scheduled First Post-Op Follow Up Appointment Date/Time _____
- Pick up Soap & Prescriptions the Friday before Surgery Date/Time _____

Arranging for Help After Surgery

- Arrange for Someone to Stay with You for the First Few Days/Nights
- Arrange for Someone to Drive You Home
- Arrange for Someone to Drive You to Therapy & Appointments

Getting Yourself Ready for Surgery

- STUDY THIS BOOK & REFERENCE IT AS NEEDED**
- Begin Nutritious Pre-Op Eating PlanPage 16-23
- Begin Pre-Op Home ExercisesPage 13-14 & 43-47
- Begin Pre-Op Bowel Prep & Antacids.....Page 13-14
- Begin Pre-Op Oral Care for Surgery Page 13-14
- Stop Taking Certain Medications as InstructedPage 11-12
- Stop Eating/Drinking the Night Before Surgery..... Page 28
- Take Tylenol the Night BeforePage 13
- Pre-Surgical Bathing x2..... Page 27

Getting Your Home Ready for Recovery

- Cleaned House and Removed Tripping Hazards Page 26
- Organized Living Space & Frequently Used ItemsPage 26
- Home is Ready for Single Level Living if Possible.....Page 26
- Grocery Shopping Completed.....Page 24
- Over the Counter Medicines Purchased Page 24, 35
- Ice Pack(s) are Ready in the Freezer Page 33



HORBERG TOTAL JOINTS

John V Horberg, MD
Joint Replacement Specialist