

YOUR TREATMENT TOOLKIT

Prostate Radiotherapy
Supportive Care Guide

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Evidence-based protocols from NCCN, ASTRO, and clinical trials

Welcome to Your Treatment

Prostate cancer radiotherapy is a proven, effective treatment. This guide contains evidence-based strategies to manage the side effects and protect your quality of life during and after treatment.

Treatment Timeline

Treatment Type	Number of Sessions	Duration
Conventional RT	39–45 fractions	Over 8–9 weeks
Moderate Hypofractionation	20–28 fractions	Over 4–6 weeks (less frequent)
SBRT (Stereotactic)	5 fractions	Over 1–2 weeks (highly targeted)

Side effects typically **begin in weeks 2–3**, peak during treatment and 1–2 weeks after, then gradually improve over 4–12 weeks. This guide helps you manage them.

The Golden Rules

1. Bladder and Bowel Prep Matter

Follow your full/empty bladder instructions precisely before each treatment. Consistency = better treatment accuracy and fewer side effects.

2. Urinary Symptoms Are Expected

Frequency, urgency, weak stream, and burning are common. They peak during treatment and improve after. Medications help. Tell your team if symptoms worsen unexpectedly.

3. Bowel Changes Are Manageable

Loose stools, urgency, and occasional rectal bleeding are expected. A low-residue diet and medications control most symptoms. Most resolve completely within weeks of finishing.

4. Sexual Function Changes Gradually

Erectile dysfunction develops slowly over months to years, not overnight. Early intervention with medications (“use it or lose it” principle) improves outcomes significantly.

Section 1 — Bladder & Urinary Symptoms

*Urinary side effects are the **most common** complaint with prostate RT. They are manageable and usually resolve completely.*

What to Expect

Symptoms typically begin in **weeks 2–3** and peak around weeks 5–6, then improve over 4–8 weeks after treatment.

- **Frequency:** Needing to urinate more often (every 1–2 hours)
- **Urgency:** Sudden, strong need to urinate
- **Nocturia:** Waking multiple times at night to urinate (most annoying)
- **Weak stream:** Reduced force of urination
- **Burning:** Discomfort or pain during urination

Alpha-Blockers (First-Line Medication)

Tamsulosin (Flomax) is the most commonly used alpha-blocker for radiation-related urinary symptoms. It relaxes the muscles around the bladder neck, reducing urgency and improving flow.

Note: Tamsulosin is typically started when symptoms develop, not prophylactically. Your team will prescribe it if you develop bothersome urinary symptoms.

- **Dosing:** 0.4–0.8 mg once daily, typically at bedtime
- **Timing:** Take 30 minutes after the same meal each day
- **Side effects:** Dizziness, fainting (especially when rising from sitting). Rise slowly from bed or chairs.
- **Effectiveness:** 60–70% of patients see significant improvement in urinary symptoms

Hydration Strategy

How and when you drink matters as much as how much you drink.

- **During the day:** Drink normally, spread throughout morning and afternoon
- **After 6 PM:** Taper fluid intake to reduce nighttime voiding. Small sips of water only.
- **Before bed:** Minimize fluids. Urinate before sleeping.
- **Bladder protocol:** Follow your radiation team’s instructions about filling your bladder before treatment — this is critical for treatment accuracy.

Bladder Irritants to Avoid

These worsen urgency and frequency:

- **Caffeine:** Coffee, tea, energy drinks, chocolate — BIGGEST trigger
- **Alcohol:** Beer, wine, liquor
- **Acidic foods/drinks:** Orange juice, tomatoes, spicy foods
- **Artificial sweeteners:** Aspartame, sucralose (in diet sodas, sugar-free candies)
- **Carbonated drinks:** Soda, sparkling water

Kegel Exercises (Pelvic Floor Strengthening)

Strengthening the pelvic floor can reduce urgency and improve continence.

1. **Identify the muscles:** Stop your urine mid-stream (do this ONCE to identify the muscles, then stop).
2. **Contract:** Squeeze those muscles as hard as you can for 5 seconds.
3. **Release:** Relax for 5 seconds.
4. **Repeat:** 10 contractions, 3 times daily (morning, afternoon, evening).

Tip: Do Kegels while sitting, standing, or lying down. They are most effective if done consistently for 8–12 weeks.

When to Call: Urinary Retention

If you cannot urinate for 8+ hours or your bladder is painfully full, this is a medical emergency. Call immediately. Your doctor may need to place a catheter.

Section 2 — Bowel & Rectal Symptoms

Bowel symptoms are usually mild to moderate and respond well to diet and medication.

What to Expect

Symptoms typically begin in **weeks 3–4** and resolve within weeks of finishing treatment.

- **Loose stools / diarrhea:** Most common
- **Increased frequency:** More frequent bowel movements
- **Urgency:** Sudden need to go (can be unpredictable)
- **Mucus/blood:** Small amounts in stool are normal. Report heavy bleeding.
- **Hemorrhoids/anal itching:** From straining or diarrhea

Low-Residue Diet (Primary Strategy)

Low-residue foods are easier to digest and produce less stool, reducing frequency and urgency.

Encouraged Foods:

- White rice, pasta, white bread (soft only)
- Eggs, plain chicken, turkey, fish (well-cooked, not spicy)
- White potatoes (peeled), sweet potatoes (in moderation)
- Bananas, applesauce, canned peaches (no skin)
- Cottage cheese, yogurt (plain, dairy only)
- Smooth peanut butter (1 tbsp)

Foods to Avoid:

- Whole grains, high-fiber cereals, bran

- Raw vegetables, salads, corn
- Beans, lentils, legumes
- Spicy foods, hot sauce
- Fried foods, high-fat meats
- Dairy (if you're lactose intolerant)
- High-sugar foods, candy (can worsen diarrhea)

Medications

- **Loperamide (Imodium):** Over-the-counter, reduces loose stools. Dosing: 2–4 mg as needed (max 8 mg/day). Safe, well-tolerated.
- **Diphenoxylate (Lomotil):** Prescription alternative if Imodium doesn't work.

Hemorrhoid & Anal Comfort Management

- **Sitz baths:** Sit in warm water (not hot) for 10–15 minutes after bowel movements. Reduces pain and itching.
- **Witch hazel pads (Tucks):** Soothing, astringent. Use after each bowel movement.
- **Avoid straining:** Use stool softeners (Colace) if needed.
- **Keep the area clean and dry:** Use soft toilet paper or a bidet. Pat dry with soft cloth.

Probiotics

Lactobacillus-based probiotics have **moderate evidence** for reducing diarrhea severity in pelvic RT. They are safe and may help.

- **Example:** Culturelle, Align, VSL#3
- **Dosing:** Take as directed on package, daily

Rectal Bleeding

Small amounts of blood in stool are **normal and usually self-limited** during pelvic RT. Report **heavy bleeding** (soaking pads) immediately.

***Important:** Long-term radiation proctitis (chronic rectal bleeding) is rare (<5%) with modern IMRT. When it occurs, it can develop years after treatment and may require endoscopic intervention. Monitor for any ongoing bleeding beyond 3 months post-RT.*

Section 3 — Sexual Health & Erectile Function

***The reality:** Erectile dysfunction (ED) is the most common long-term side effect of prostate RT. It is also the most treatable. Talk about it early.*

Timeline

Unlike surgery, ED from radiation develops **GRADUALLY** over months to years, not immediately.

- Immediate post-RT (0–6 months): Most men maintain baseline function
- 6–12 months: Some difficulty with erections may begin
- 1–2 years: ED becomes more apparent in 30–50% of men
- 2–5 years: Up to 60–80% experience some degree of ED (depends on age, comorbidities)

Mechanism

Radiation damages the small blood vessels supplying the penis, reducing blood flow needed for erections. It is a vascular problem, not a neurological or hormonal one.

Risk Factors

- **Age:** Older men experience higher rates of ED from RT
- **Baseline sexual function:** Men with ED before RT have worse outcomes
- **Diabetes:** Significantly worsens ED risk
- **Cardiovascular disease:** Increases ED risk
- **Smoking:** Major contributor to ED
- **Androgen deprivation therapy (ADT):** Dramatically worsens ED if given concurrently

First-Line Treatment: PDE5 Inhibitors

These medications improve blood flow to the penis and are effective in 60–70% of men with radiation-induced ED.

- **Sildenafil (Viagra):** 50–100 mg, taken 30–60 minutes before sexual activity. Cost: ~\$15–50 per pill (GoodRx pricing with generic).
- **Tadalafil (Cialis):** 10–20 mg, taken 30–60 minutes before activity. Also available as daily low-dose (5 mg daily). Cost: ~\$20–60 per pill.
- **Vardenafil (Levitra):** Alternative option

Early Treatment Matters:

Consider starting PDE5 inhibitors **early** if ED develops. While the concept of “penile rehabilitation” (daily PDE5 inhibitors to prevent ED) was widely promoted, randomized trials (e.g., REACTT) have not shown that daily tadalafil prevents long-term ED after prostate cancer treatment. However, **treating ED symptoms early** when they occur is reasonable and may preserve sexual confidence and relationship quality. Discuss timing and approach with your team.

Other Treatment Options

- **Vacuum erection devices (penis pumps):** ~\$100–300. FDA-approved, effective, safe. No drug interactions.

- **Penile injections (alprostadil):** Self-injected into the penis. Works in 70–80% of men who don't respond to pills. More invasive but highly effective.
- **Penile implants:** Surgical option for severe ED not responding to other treatments. Discuss with urology if other options fail.

Ejaculation & Orgasm

ED is separate from orgasm sensation. You may have difficulty with erections but maintain the ability to orgasm.

- Ejaculatory volume may decrease (dry orgasm possible)
- Orgasm sensation is usually preserved

Fertility & Sperm Banking

Radiation can reduce sperm count and motility. **If you plan to have children after treatment, consider sperm banking BEFORE starting radiation.**

Talk to your oncologist about fertility preservation options. Sperm banking is time-sensitive and should be done pre-treatment.

Communication & Partner Support

Sexual side effects are deeply personal. Open communication with your partner is essential.

- Discuss expectations before treatment starts
- Reassure your partner that ED is a treatment side effect, not loss of attraction
- Explore non-penetrative intimacy options
- Consider sex therapy or couples counseling if needed
- Urology referral available for specialized sexual medicine consultation

Section 4 — Androgen Deprivation Therapy (ADT) Side Effects

Many prostate cancer patients receive hormone therapy (ADT) in addition to radiation. If you're on ADT, these side effects are separate from radiation effects.

Common ADT Medications

- **GnRH agonists:** Lupron, Goserelin (Zoladex), Eligard
- **GnRH antagonists:** Degarelix (Firmagon)
- **Androgen receptor inhibitors:** Enzalutamide (Xtandi), Bicalutamide (Casodex)

Major ADT Side Effects

- **Hot flashes:** Sudden sweating, flushing. Affects 70–80% of men. Most bothersome.
- **Fatigue:** Profound, sometimes debilitating
- **Weight gain:** Average 5–10 lbs in first year (metabolic change)
- **Loss of libido / ED:** Complete loss of sexual desire (hormonal, not vascular)
- **Mood changes:** Irritability, depression, anxiety
- **Osteoporosis:** Bone loss accelerated
- **Metabolic syndrome:** Increased blood sugar, cholesterol, blood pressure
- **Muscle loss:** Reduced muscle mass and strength

Hot Flash Management

- **Venlafaxine (Effexor):** Antidepressant, effective for hot flashes. Dosing: 37.5–150 mg daily. 60–70% respond well.
- **Gabapentin (Neurontin):** 300–1800 mg daily in divided doses. Alternative option.
- **Oxybutynin:** 5–15 mg daily. Originally an overactive bladder medication, but shown in randomized trials to reduce hot flash frequency by ~80%. Ask your team if this is appropriate for you.
- **Lifestyle measures:** Keep environment cool, avoid caffeine/spicy foods, wear breathable clothing, moisture-wicking fabrics.
- **Cooling products:** Cooling towels (~\$10–15), cotton sheets, cooling pillows.

Bone Health on ADT

ADT accelerates bone loss. Monitoring and prevention are critical.

1. **Baseline DEXA scan:** Within 3 months of starting ADT. Repeat every 2 years (or annually if osteopenia detected).
2. **Calcium + Vitamin D supplementation:** 1000–1200 mg calcium, 800–1000 IU vitamin D daily
3. **Weight-bearing exercise:** Walking, resistance training, step-ups
4. **Repeat DEXA:** Every 1–2 years to monitor bone density
5. **Bisphosphonates:** If DEXA shows significant loss, medications like Zoledronic acid or Risedronate may be prescribed

Exercise is CRITICAL on ADT

Exercise is the single best intervention for ADT-related side effects. The IRONMAN and Exercise Medicine trials confirm that combined aerobic + resistance training significantly reduces fatigue, preserves muscle, and improves quality of life on ADT.

- **Aerobic exercise:** 150 minutes/week moderate intensity (brisk walking, cycling, swimming). Aim for 30 minutes most days. Reduces fatigue, improves cardiovascular health and mood.

- **Resistance training:** 2–3 sessions/week targeting major muscle groups (legs, chest, back, arms). 8–12 reps x 2–3 sets. Preserves muscle mass, improves bone density, counters metabolic effects of ADT.
- **Flexibility:** Stretching, yoga. Helps with stiffness.

Metabolic Monitoring

ADT increases cardiovascular and metabolic risks (the PRONOUNCE trial confirmed comparable CV event rates between GnRH agonists and antagonists, so the choice of ADT agent matters less than proactive CV risk management). Regular monitoring is essential:

- **Baseline labs:** Fasting glucose, HbA1c, lipid panel before ADT starts.
- **Cardiology referral:** Consider if pre-existing CV disease or multiple risk factors.
- **Statin therapy:** Discuss with your PCP if lipids worsen on ADT.
- **Blood pressure:** Check monthly if on ADT
- **Fasting glucose / lipid panel:** Baseline and annually
- **Weight:** Monitor weekly. Report gains >5 lbs/month.
- **Cardiovascular screening:** Discuss with your primary care doctor about CV risk assessment.

Section 5 — Fatigue & Exercise

Fatigue from prostate RT is generally **milder than other cancer sites** but still real. On ADT, fatigue can be profound.

Causes

- **Radiation:** Cellular damage, reduced energy production
- **ADT:** Hormonal changes, loss of anabolic effects of testosterone
- **Psychological:** Stress, anxiety, sleep disruption

Evidence-Based Strategies

1. **Regular aerobic exercise:** 30 minutes daily, most days. Strongest evidence for fatigue reduction.
2. **Resistance training:** 2–3 times/week. Improves strength, mood, self-efficacy.
3. **Sleep hygiene:** Regular bedtime, no screens 1 hour before bed, keep bedroom cool and dark.
4. **Pacing:** Alternate activity with planned rest. Don't push through exhaustion.
5. **Nutrition:** Adequate protein (see Section 7), regular meal timing.
6. **Social support:** Stay connected. Isolation worsens fatigue.

When to Seek Help

If fatigue interferes with daily activities, talk to your team. **Depression is common and treatable.** Ask about screening.

Section 6 — Skin Care

Skin irritation is **minimal for prostate RT** because the treatment field is mostly internal. However, the perineal area (groin, scrotum) may have mild irritation.

Perineal & Groin Skin Care

- **Clothing:** Loose, soft cotton underwear. Avoid tight athletic wear.
- **Washing:** Gentle wash with mild soap and lukewarm water. Pat dry completely.
- **Moisturizing:** If skin is dry/irritated, use Aquaphor or CeraVe cream.
- **Avoid:** Tight jeans, rough fabrics, strong deodorants, perfumed products.

Sun Protection

If external beam fields exposed skin, use SPF 45+ sunscreen daily on those areas. This is more relevant if SBRT used (minimal skin exposure).

Section 7 — Nutrition & Weight Management

Nutrition is especially important if you're on ADT, which promotes weight gain and metabolic changes.

Weight Tracking

- **Weigh yourself weekly:** Same day, same time, same clothing
- **Write it down** (use a spreadsheet or app)
- **Report significant gain:** >5 lbs/month suggests metabolic changes needing intervention

Nutritional Goals

1. **Protein for muscle preservation:** 1.0–1.2 g/kg body weight daily. Examples: 180-lb man = 80–98g protein/day. This requires deliberate planning on ADT.
2. **Bone health:** Calcium-rich foods (dairy, leafy greens, fortified foods). Supplement if needed (1000–1200 mg/day).
3. **Heart-healthy diet:** Mediterranean-style diet recommended on ADT. Olive oil, fish, vegetables, whole grains, nuts.
4. **Avoid excessive calorie intake:** Despite increased hunger (hormonal), weight gain should be minimized.

Alcohol

Limit or avoid. Alcohol is a bladder irritant and increases metabolic risk on ADT.

Supplements

Calcium + Vitamin D: Essential on ADT. Supplement if diet insufficient.

Do NOT take: Herbal supplements, high-dose antioxidants, or supplements claiming to “block testosterone” without discussing with your oncologist first.

Section 8 — Emotional Support & Quality of Life

Prostate cancer and its treatment address deeply personal aspects of masculinity and identity. Emotional side effects are real and treatable.

Common Emotional Responses

- Fear of recurrence
- Identity and masculinity concerns (especially related to ED)
- Anxiety and depression (higher on ADT)
- Relationship strain (sexual changes impact partners)

Support Resources

- **Us TOO International:** ustoo.org — Prostate cancer support groups, online resources
- **ZERO — The End of Prostate Cancer:** zerocancer.org — Research, advocacy, support
- **American Cancer Society “Man to Man”:** Peer support groups
- **Your hospital social worker:** Free counseling and support navigation
- **Sex therapist:** Specialized therapist for sexual health and relationship support
- **Couples counseling:** Address relationship/sexual impact with professional help

Depression & Anxiety Screening

Ask your team about depression/anxiety screening. **These conditions are treatable.** Medications (SSRIs, others) are safe and effective.

Radiation Safety

You are NOT radioactive. It is safe to be close to family, partners, children, and pets throughout your treatment.

Section 9 — Treatment-Day Tips

Bladder Protocol

Your bladder position affects radiation accuracy. Follow the full/empty bladder instructions provided by your radiation team **exactly**.

- **Typical full-bladder protocol:** Drink 16–20 oz water ~45 minutes before treatment, hold until after treatment
- **Consistency matters:** Same amount of fluid, same timing each day. This improves accuracy.

Bowel Preparation

An empty rectum improves treatment accuracy and reduces side effects.

- **Try to have a bowel movement** before arriving for treatment
- **If frequent diarrhea:** Use an antidiarrheal (Imodium) or adjust timing

Clothing & Comfort

- **Wear comfortable, easy-to-remove pants** (no belts, zippers, or tight waistbands)
- **Treatment time:** 10–20 minutes total (imaging + treatment)
- **Positioning:** You'll lie still on the treatment table. Pillows/supports provided.

Section 10 — Red Flags: When to Call Us

Call us immediately if you experience any of the following:

Symptom	Why It Matters
Unable to urinate (8+ hours)	Urinary retention — URGENT. May need catheter.
Fever over 100.4°F	Possible UTI or infection requiring antibiotics
Heavy rectal bleeding	Soaking pads. Needs evaluation.
Blood clots in urine	Hematuria. May require intervention.
Severe abdominal pain	Multiple possible causes. Needs assessment.
Chest pain / shortness of breath	Possible cardiac event (especially on ADT)
Severe leg swelling (one side)	Possible deep vein thrombosis (DVT)
Uncontrolled pain	Stronger medications available
No bowel movement 3+ days	Constipation may need intervention
Dizziness / fainting	May be Flomax side effect — medication adjustment needed

Section 11 — Long-Term Follow-Up

Treatment is not the end of your care. Ongoing monitoring and prevention are critical.

PSA Monitoring

PSA blood tests track treatment success. Your oncologist will determine the monitoring schedule (typically every 3–6 months for first 2 years, then annually).

Urinary Function

Most men return to baseline urinary function within 3–12 months. If chronic urinary symptoms persist (rare), talk to your team. Physical therapy may help.

Erectile Function

Continue PDE5 inhibitors as needed for ED symptoms. Work with urology if medications don't work. Earlier intervention = better outcomes.

Bowel Function

Chronic radiation proctitis is rare (<5% with modern IMRT). If rectal bleeding persists beyond 3 months post-RT, report it for evaluation (may need endoscopy).

Bone Health (if on ADT)

- **DEXA scans:** Every 1–2 years
- **Continue calcium + vitamin D supplementation**
- **Weight-bearing and resistance exercise:** Lifelong

Cardiovascular Screening (if on ADT)

ADT increases cardiovascular risk. Work with your primary care doctor on CV risk reduction and preventive measures.

Second Cancer Screening

Radiation slightly increases lifetime risk of secondary malignancies. Avoid tobacco and alcohol. Report any new concerning symptoms to your doctor.

Recommended Products

Below are commonly recommended products for managing side effects. These are suggestions, not endorsements — equivalent brands work fine.

Category	Product	Cost	Notes
Urinary	Flomax (Tamsulosin)	Rx	Prescribed by oncologist
Urinary	AZO Bladder Control	~\$15	OTC, reduce urgency
Urinary	Depends / Pads	~\$12	OTC, containment
Bowel	Imodium (Loperamide)	~\$10	OTC, reduces diarrhea
Bowel	Tucks Pads (witch hazel)	~\$8	OTC, hemorrhoid relief
Sexual Health	Sildenafil (generic)	~\$15–50	GoodRx pricing, per pill
Sexual Health	Tadalafil (generic)	~\$20–60	GoodRx pricing, per pill
Sexual Health	Vacuum device	~\$100–300	FDA-approved, no drug interactions
ADT Support	Cooling towels	~\$10–15	For hot flashes

Category	Product	Cost	Notes
ADT Support	Resistance bands	~\$15	For home exercise
Nutrition	Ensure Max Protein	~\$28/12pk	30g protein, 150 cal
Nutrition	Calcium + Vitamin D	~\$10	Daily supplement on ADT
Skin	Aquaphor	~\$12	Gentle moisturizer

*Prescriptions (Flomax, antidiarrheal, pain medications) will be provided by your care team. **Sexual health medications** (sildenafil, tadalafil) can be obtained via GoodRx or insurance.*

Important Contact Information

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Phone

Appointment Line: 1.866.CALL.MLH (1.866.225.5654)

If you are experiencing a life-threatening emergency, call 911.

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My Treatment Journal

A place to notice patterns, remember questions, and track what helps.

You do not need to fill this out perfectly. Even a few notes can help you see patterns, remember what worked, and tell your care team what is actually happening at home.

This Week

Week of / goals / anything I especially want help with

Daily Check-In

Day / Date	Energy (0-10)	Pain (0-10)	Eating / Drinking	Sleep	Main note
Mon					
Tue					
Wed					
Thu					
Fri					
Sat					
Sun					

Symptoms I Want to Watch

<input type="checkbox"/> Urinary frequency	<input type="checkbox"/> Urgency / burning	<input type="checkbox"/> Bowel changes
<input type="checkbox"/> Fatigue	<input type="checkbox"/> Sexual function	<input type="checkbox"/> Hot flashes / ADT effects
<input type="checkbox"/> Other: _____		

What I Tried / What Helped

Use this page to test small changes and keep track of what helps, what does not, and what you want to ask about next.

Problem or symptom	What I tried	Did it help?	Next step / question

Examples: taking pain medicine before meals, changing skin care timing, drinking earlier in the day, using a humidifier, adjusting fiber, walking after treatment, or asking for a refill.

Questions for My Care Team

Bring this page to visits. Small questions are worth writing down, especially when treatment days start to run together.

Symptoms or side effects I want to mention

Medication, refill, or product questions

Eating, drinking, bowel, bladder, skin, sleep, or activity questions

Logistics: appointments, transportation, work, family, forms

One thing I keep forgetting to ask
