



2025 OAOS

ANNUAL ORTHOPAEDIC CONFERENCE

HYATT REGENCY PORTLAND

SEPTEMBER 26-27, 2025

**I have no relevant financial relationships
with ineligible companies to disclose.**



Obesity Medicine for Orthopedic Practice

Moving High Risk Patients Safely to the Table



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- Board Certified in Internal Medicine
- Diplomate of the ABOM

Past medical history of heart stuff and blah, blah, blah. Plan OR tonight.

--An orthopedic surgeon's H&P





SURVEY

Objectives



1

How to safely optimize
obese Orthopedic surgical
patient candidates

Objectives



2

What Orthopedics need to
know about weight loss
medications

Objectives



3

Why malnutrition is as important as obesity for Orthopedics

Objectives

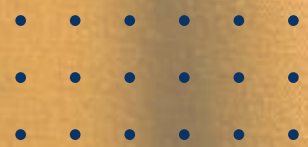


4

When and how to refer to
an Obesity Medicine
Physician



3 Question Screening Tool





If you die
whilst waiting
to hit your
BMI target for
your surgery,
please cancel
your
appointment

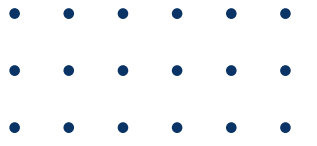


Collaborate to Operate



Internal medicine rounds

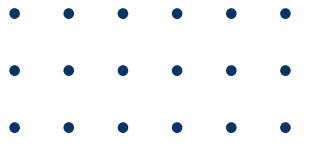
Ok let's order an EKG
and a troponin and—

A large, glossy yellow oval plate is centered on the slide. It has a slight shadow underneath, giving it a 3D appearance. The text is written in white, bold, sans-serif font across the center of the plate.

Let Me
Take That
Off Your Plate



Clinical Case



58 yo F

● BMI 52

● Severe Left Knee
Osteoarthritis



PMH:

- HTN
- HLD
- OSA





- **Pain \geq 8/10 walking <1 block**

- **Difficulty rising seated position**

- **Nighttime pain**

FAILED...



PT



**Multiple
corticosteroid
injections**



NSAIDs

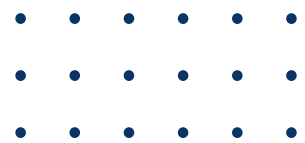


**Series of
Orthovisc
injections**





Candidate for TKA





EXCEPT –
Surgery
deferred due to
BMI = 52

The background is a blurred image of an operating room. A large, semi-transparent orange rectangle is centered over the image, containing white text. There are two smaller orange squares, one on the left and one on the right, partially overlapping the main rectangle. In the top right and bottom left corners, there are decorative patterns of small blue dots.

Institutional Policy

BMI < 40 for
elective joint
procedures



“

Patient's Statement

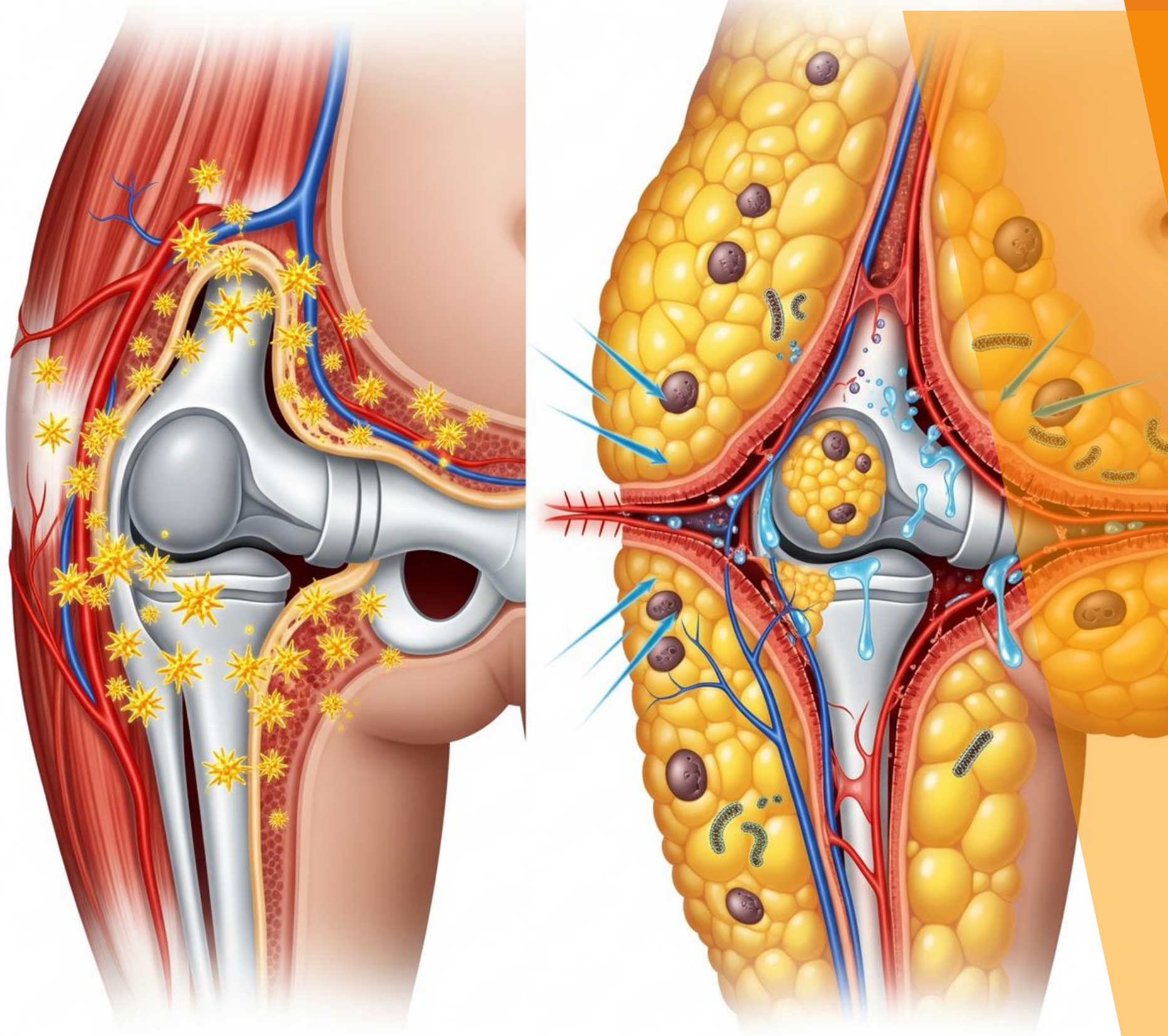
I want surgery, but I
physically can't
lose weight when
I'm this immobile.

”

why?

Five Rationales for BMI Cutoffs

High BMI



1

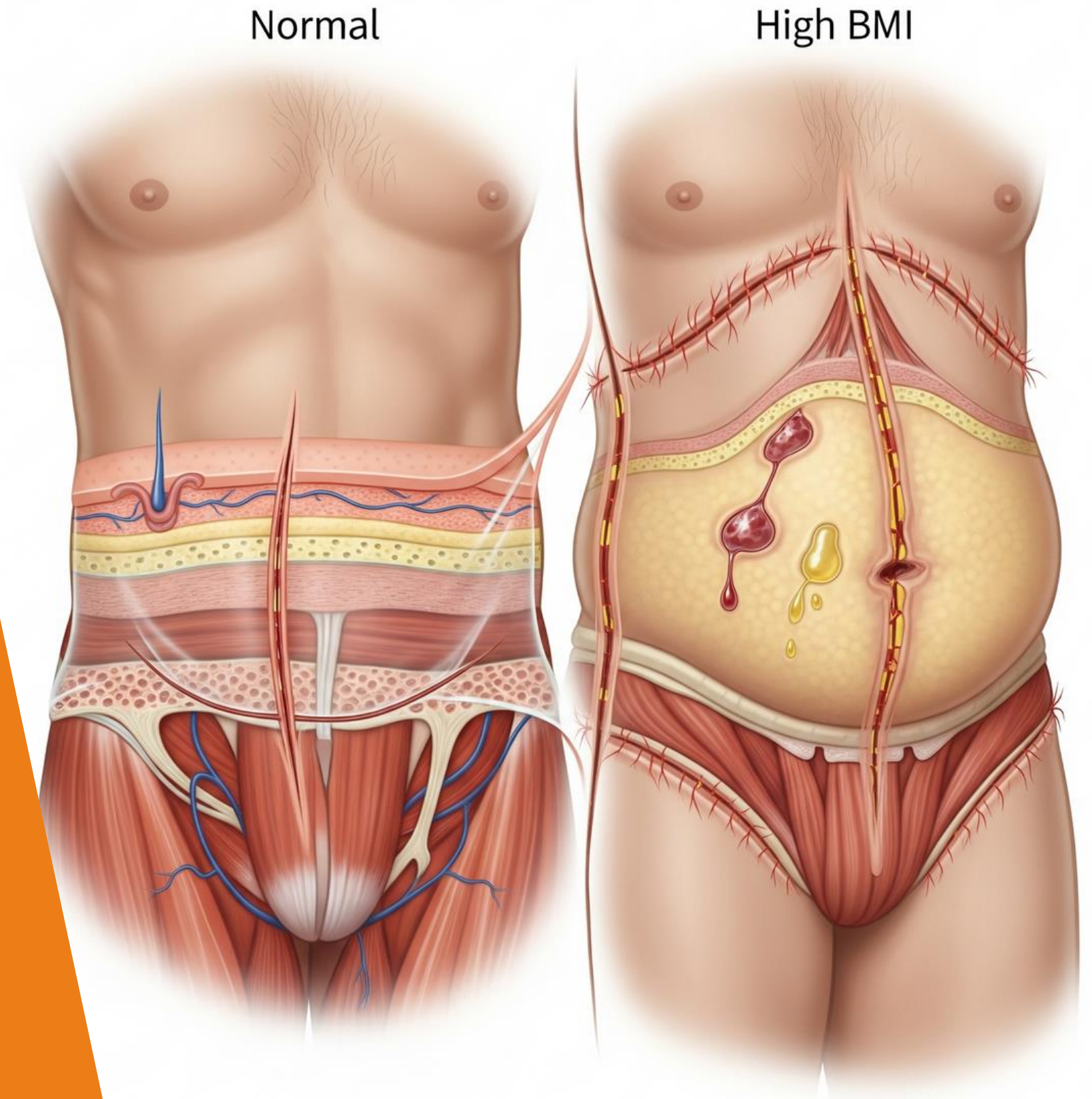
Infection Risk

2–3X higher risk of periprosthetic joint infection

2

Wound Healing & Complications

- Delayed wound healing
- ↑ Risk of hematoma/seroma





3

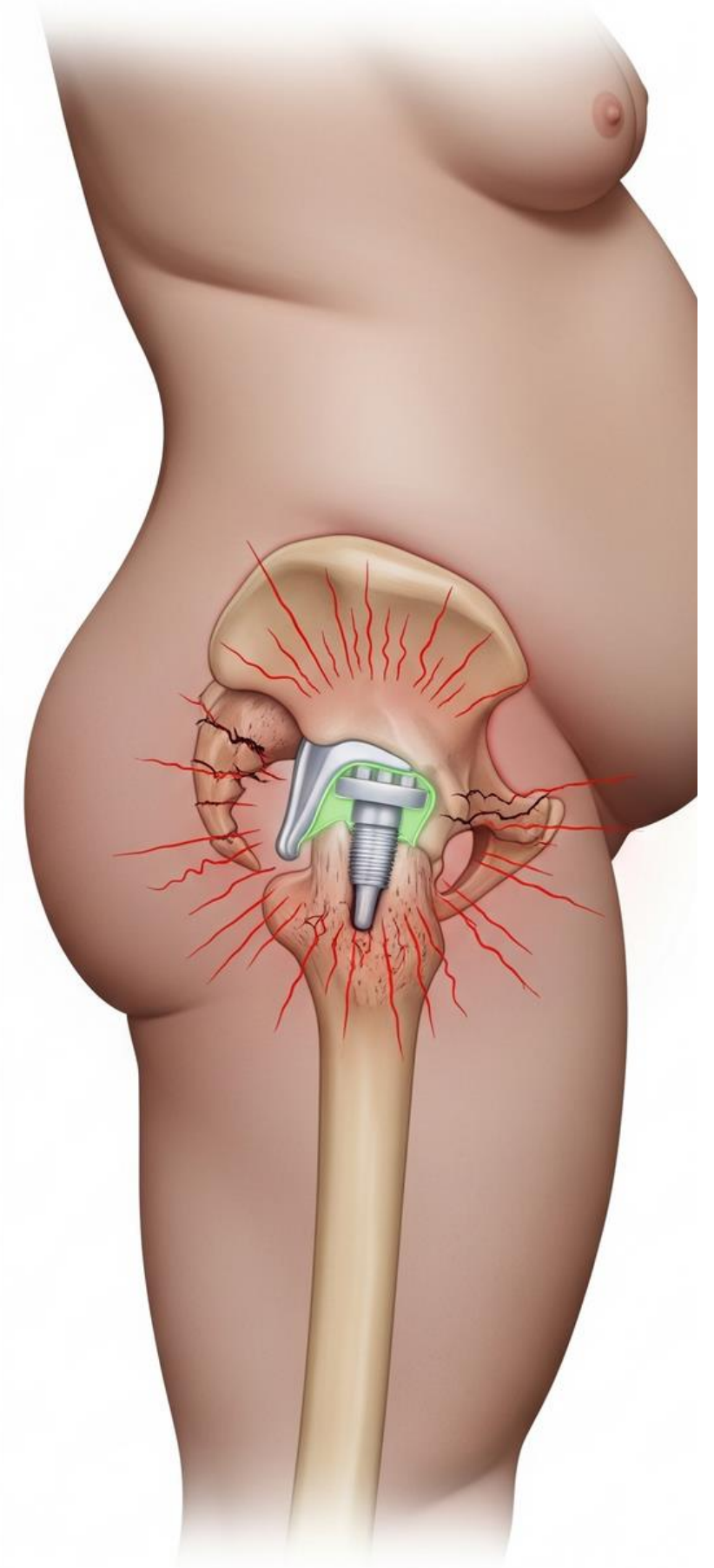
Anesthetic & Operative Challenges

↑Risk of airway
difficulty and
Cardiopulm
complications

4

Functional Outcomes

Worse implant survival and functional recovery





5

Readmission & Cost

Higher 90-day
readmission and
revision rates



"No, that doesn't make any difference either, Miss Jones."



Lost 135 LBS.



Lost 170 LBS.



Lost 140 LBS.



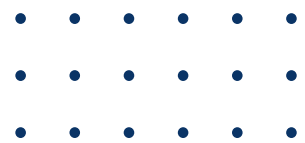
Objectives



1

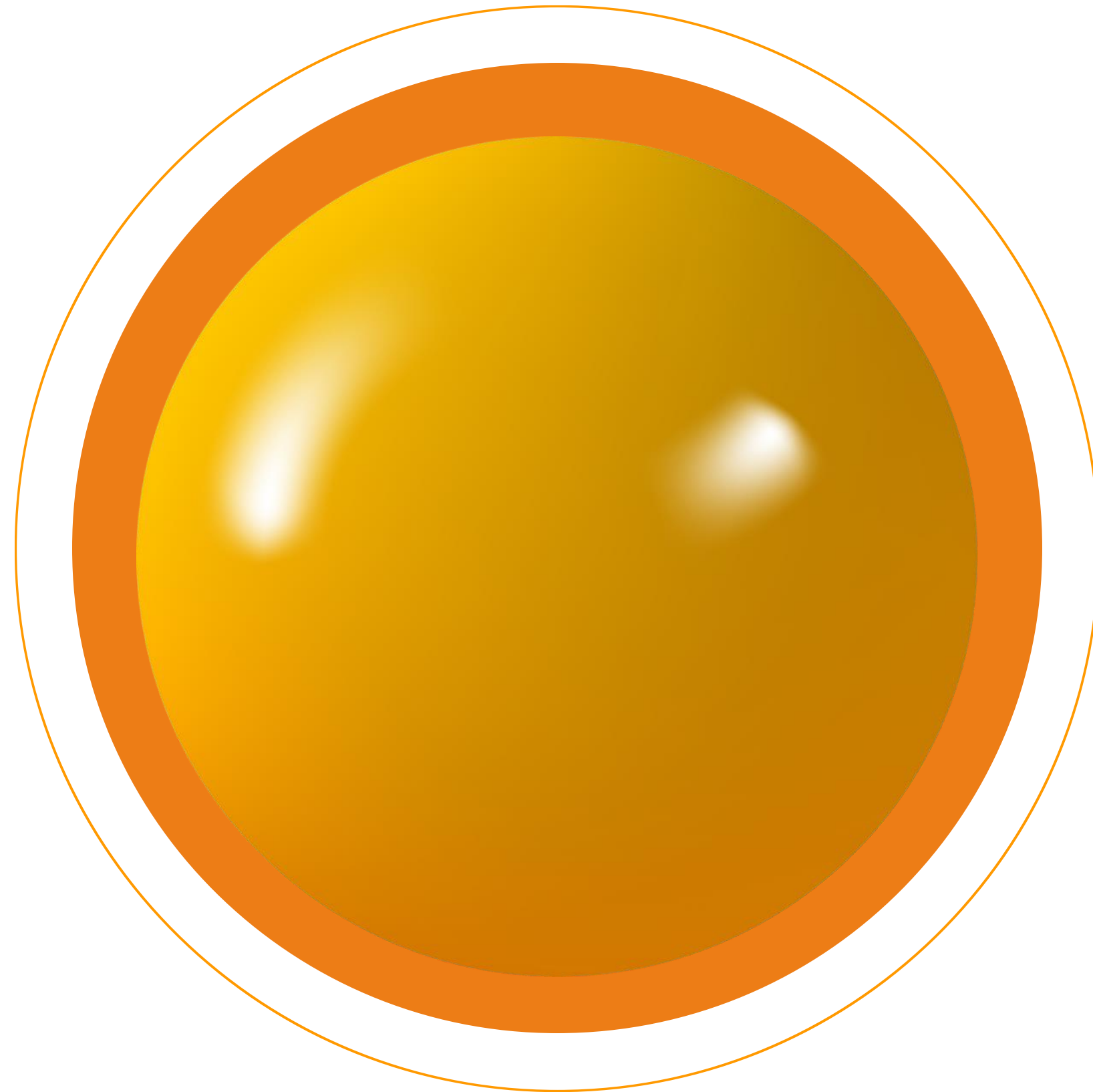
How to safely optimize
obese orthopedic surgical
patient candidates

Goal Timeline?
1-2 lbs/week



Prehab & Whole-Person Approach





SPHERES Framework



“SPHERES” Overview

 **Strength Training**

 **Proper Nutrition**

 **Hormone Replacement Therapy**

 **Emotional Wellness**

 **Red Light Therapy**

 **Effective Weight Loss Medication**

 **Sleep**



Strength Training



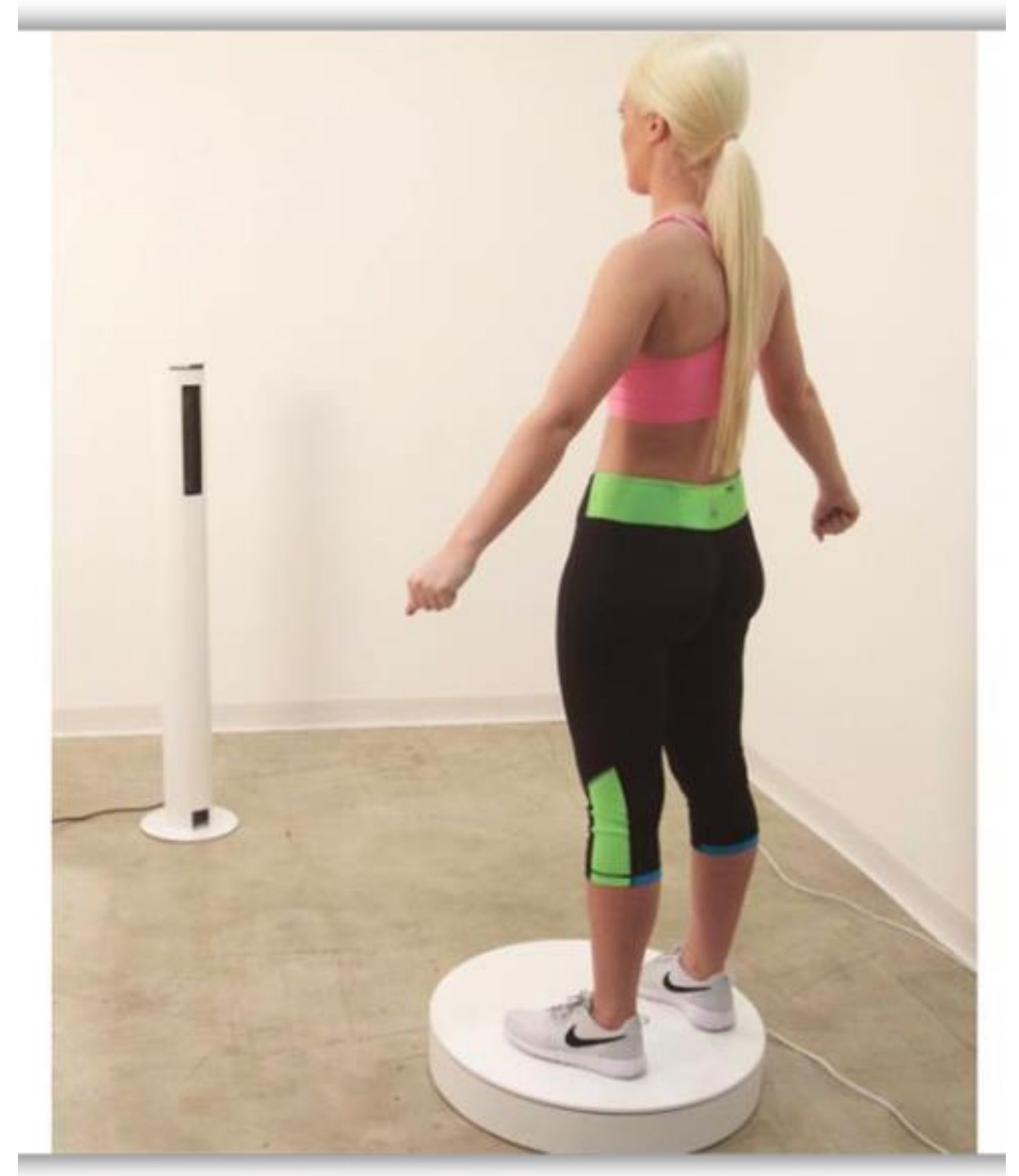
- **Preserves and builds lean muscle mass**
- **Improves balance and joint stability**
- **Accelerates rehab and recovery**



3D Body Scanning Optical Imaging



3D Body Scanning Optical Imaging, 98% correlated with bone density, Near Perfect repeatability



Proper Nutrition

1. Prioritize Protein

2. Increase Fiber

3. Reduce Added Sugar

4. Reduce Alcohol

5. Healthy Fats





**Longterm
Orthopedic
success starts in
the Kitchen – not
the OR**



Proper Nutrition

Prioritize Protein

- **Eat 1.0–1.5g of protein per kg of IBW**
- **High-quality protein sources**



Proper Nutrition

Prioritize Protein

- **Supports tissue repair and wound healing**
- **Preserves lean muscle mass**
- **Enhances immune function**



Proper Nutrition

Increase Fiber (25–30g/day)



Proper Nutrition Fiber

- **Improves glycemic control**
- **Reduces inflammation**
- **Reduces constipation**



Proper Nutrition

Reduce Added Sugar

- **Lowers inflammation**
- **Improves glucose control**
- **Supports fat loss**



Proper Nutrition

Reduce Alcohol

- Improves wound healing
- Reduces Anesthesia Risk
- Supports liver and metabolic health



Proper Nutrition

Monounsaturated and Polyunsaturated Fats



Proper Nutrition

- **Reduce inflammation**
- **Support hormone and cell membrane health**
- **Improve cardiovascular function**



Proper Nutrition

Monounsaturated Fats





Pro Tip

**If you stir Avocado or
Olive Oil into your Kale,
it makes it easier to
scrape it into the trash**



Proper Nutrition

Polyunsaturated Fats



Proper Nutrition Worst Fats for Weight Loss

Trans Fats



Hormone Replacement Therapy

**Just when I think I'm
over the menopause
symptoms...**



Hormone Replacement Therapy

Maintains muscle and bone strength



Hormone Replacement Therapy

**Improves metabolic and
cardiovascular health**



Hormone Replacement Therapy

Enhances sleep, mood, and energy



Emotional Wellness

Stress Reduction

Reduce Inflammation



Emotional Wellness Stress Reduction

Improves adherence to prehab



Emotional Wellness

Stress Reduction

Enhances pain tolerance and recovery



Red Light Therapy

- **Reduces Inflammation**
- **Promotes tissue repair**



Effective Weight Loss Medications

- Appetite suppression
- Craving control
- Enhanced energy expenditure



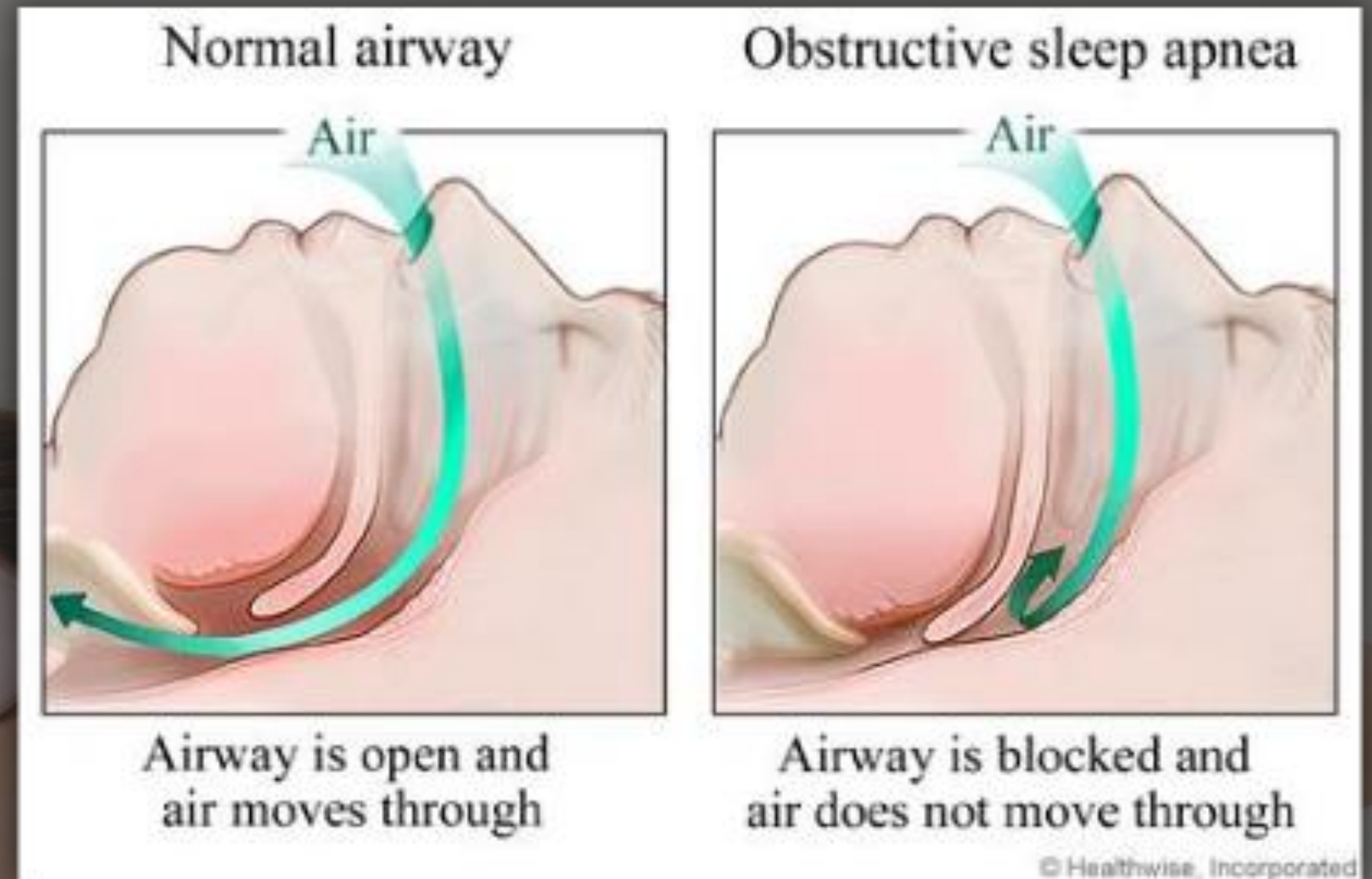
Sleep/OSA

- **Supports immune function**
- **Regulates blood sugar**



Sleep/OSA

**OSA
management
reduces
complications**



zzZ

“SPHERES” Overview

 **Strength Training**

 **Proper Nutrition**

 **Hormone Replacement Therapy**

 **Emotional Wellness**

 **Red Light Therapy**

 **Effective Weight Loss Medication**

 **Sleep**

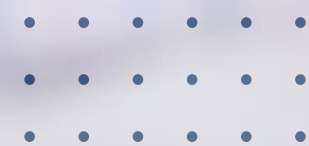


Objectives



2

What Orthopedics need to
know about weight loss
medications



**“Where do you see yourself in
20 years?”**



Me:

**STILL TRYING TO
LOSE WEIGHT**

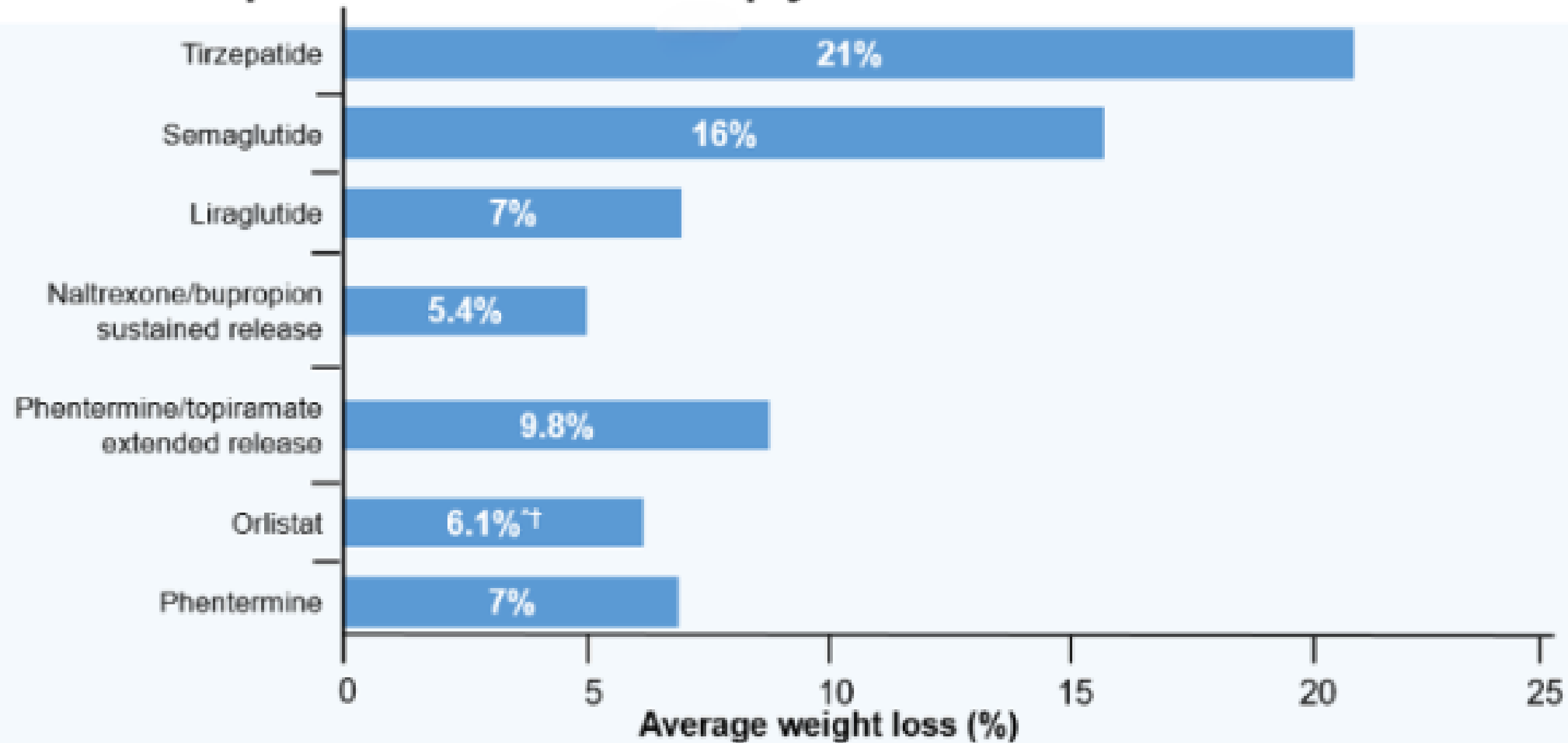
Indication Weight Loss Medications

- **Initial BMI > 30**
- **BMI > 27 and
≥ 1 weight-related comorbidity**



Effective Weight Loss Medications

Current pharmacotherapy: overview



Mechanism of Action – Obesity Medications

DRUG	Mechanism	Key Effects
Phentermine + Topiramate	↑ Norepinephrine	Appetite ↓
	GABA Modulation	Satiety ↑
	Taste Alteration	↓ Cravings



Mechanism of Action – Obesity Medications

DRUG	Mechanism	Key Effects
Bupropion + Naltrexone	Dopamine/NE reuptake inhibition	Hunger ↓
	Opioid receptor blockade	Reward-driven ↓ eating



Mechanism of Action – Obesity Medications

DRUG	Mechanism	Key Effects
Semaglutide (GLP1 Agonist)	Slows gastric emptying	Appetite ↓
	↑ Satiety	Intake ↓
	Improves insulin sensitivity	↑ Glucose Regulation



Mechanism of Action – Obesity Medications

DRUG	Mechanism	Key Effects
Tirzepatide (Dual GIP and GLP1 agonist)	Slows gastric emptying	Strong appetite suppression
	↑ Satiety	
	↑ Insulin sensitivity	Better glycemic control



Effective Weight Loss Medications

Surmount1 Trial (NEJM 2022)

Study Design:

- Randomized
- Double-blind
- Placebo-controlled



Effective Weight Loss Medications

Surmount1 Trial (NEJM 2022)

- **Tirzepatide**
- **Once weekly**
- **Adults with obesity or overweight**
without diabetes



Tirzepatide Surmount1 Trial

72 weeks

15 mg: 20.9%

Placebo: 3.1%



Effective Wgt Loss Meds – Comparison

Surpass-2 Trial (NEJM 2021)

- **Tirzepatide** (5, 10, 15 mg) vs.
- **Semaglutide** (1 mg)
- Adults with **type 2DM**



Effective Wgt Loss Meds – Comparison

Surpass-2 Trial

- **Results:**
 - Tirzepatide > weight loss and better HbA1c reduction than Semaglutide 1 mg



Effective Wgt Loss Meds – Comparison

Surpass-2 Trial

- **Unclear Comparisons:**
 - No data comparing **tirzepatide** vs **semaglutide 2.4 mg (therapeutic)**



Effective Wgt Loss Meds – Comparison

Surpass-2 Trial

- **Unclear Comparisons:**
 - **Relative effectiveness for weight loss remains uncertain**



Weight Loss Medication Benefits Beyond Weight Loss

- **Improve Glycemic Control**
- **Lowere Blood Pressure**
- **Reduces CV Risk**



Weight Loss Medication Benefits Beyond Weight Loss

- **Decreased Inflammation**
- **Improved Sleep Quality**
- **Better Liver Health**



Weight Loss Medication Benefits Beyond Weight Loss

- **Enhanced Joint Health**
- **Improved Mental Health**
- **Increased Longevity**



Objectives



3

Why malnutrition is as important as obesity for Orthopedics

Perioperative Risks of Malnutrition

- Poor wound healing
- Infection
- Impaired recovery
- Longer hospital stays



Comparative Perspective

Malnutrition higher direct risk of
morbidity and mortality than
obesity

Comparative Perspective

Cause: Protein and micronutrient
deficiency

Sarcopenic Obesity

- Combination 2 disease states:
Low muscle mass + high fat mass
- Highest operative risk

Sarcopenic Obesity

- Lack lean muscle for recovery
- More Inflammation
- Poor functional capacity

Sarcopenic Obesity

- ↑ Infection
- Delayed wound healing
- ↑ Mortality



Prehab Goal

- **Decrease body fat**
- **Increase lean body mass**

Collaborate to Operate



Objectives



4

When and how to refer to
an obesity medicine
physician

3

Questions Screening Tool



3

Questions Screening Tool for Orthopedics

1. BMI ≥ 30 or ≥ 27 with comorbidity?



3 Questions Screening Tool for Orthopedics



2. Has the patient lost >5% body weight in 3–6 months, or noticed fatigue or muscle loss?



Questions Screening Tool for Orthopedics

**3. Limited
mobility and
struggling to
meet
preoperative
BMI
thresholds?**

3 Questions Screening Tool for Orthopedics



YES!

→ **refer to
Obesity
Medicine**

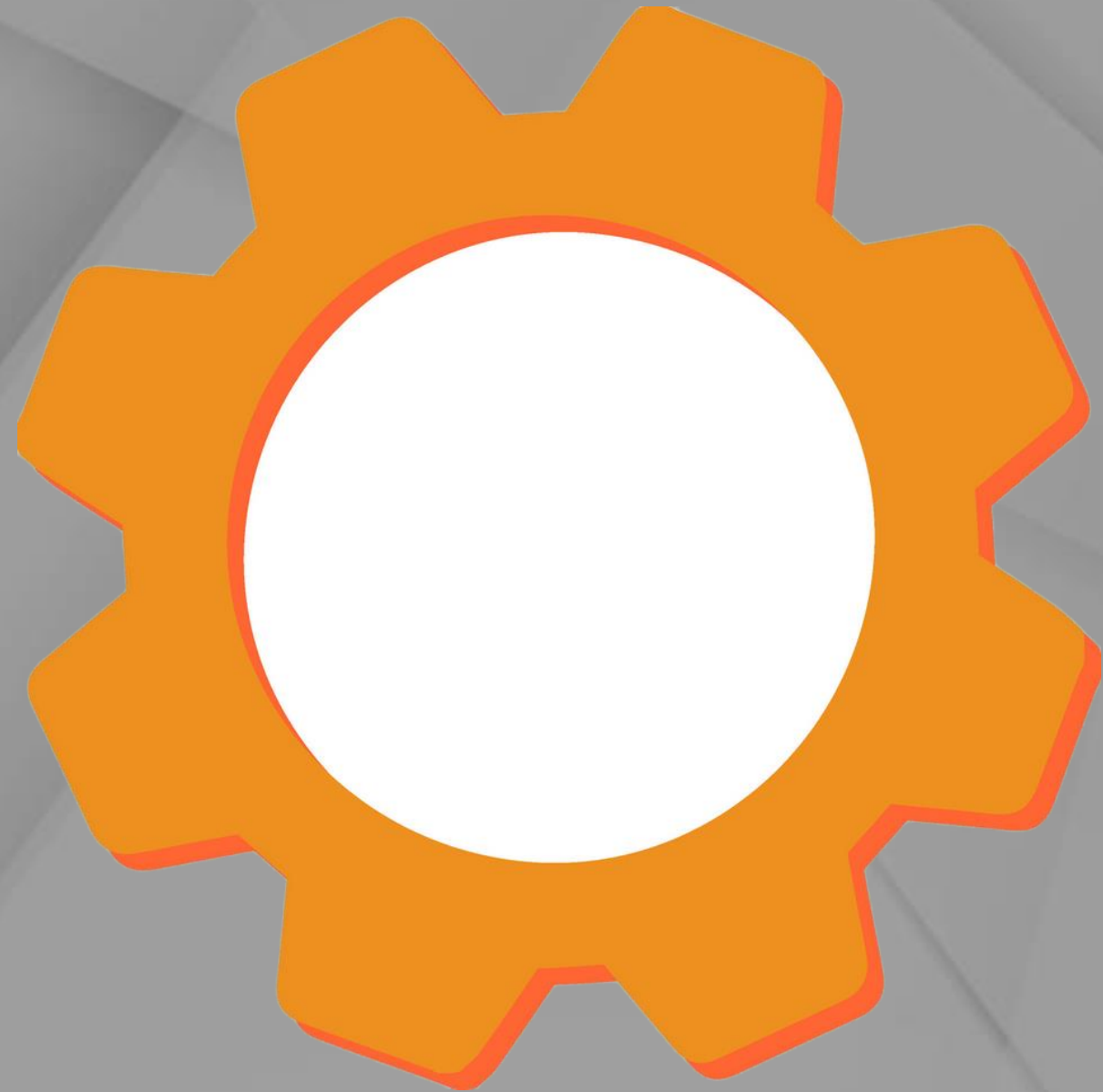
What to Look For in Obesity Medicine Doctor

1. ABOM Certified
2. Holistic Approach
3. Communication

A person's hands are shown in silhouette, framing a view of the ocean and a bright sunset. The hands are positioned to create a rectangular frame, with the index and thumb fingers of each hand touching. The background is a warm, orange-hued sky with a bright sun low on the horizon, reflecting on the water. The overall mood is contemplative and inspirational.

IMAGINE...

Why Partner with Obesity Medicine



You'll have one less
thing to manage

Why Partner with Obesity Medicine



You'll see better
surgical outcomes

Why Partner with Obesity Medicine



You will have shorter
delays to surgery

Why Partner with Obesity Medicine



Your patients heal
stronger and return
to function sooner

Down 180 LBS.



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www.radiancemd.org



SCAN ME

971-IDANCE2

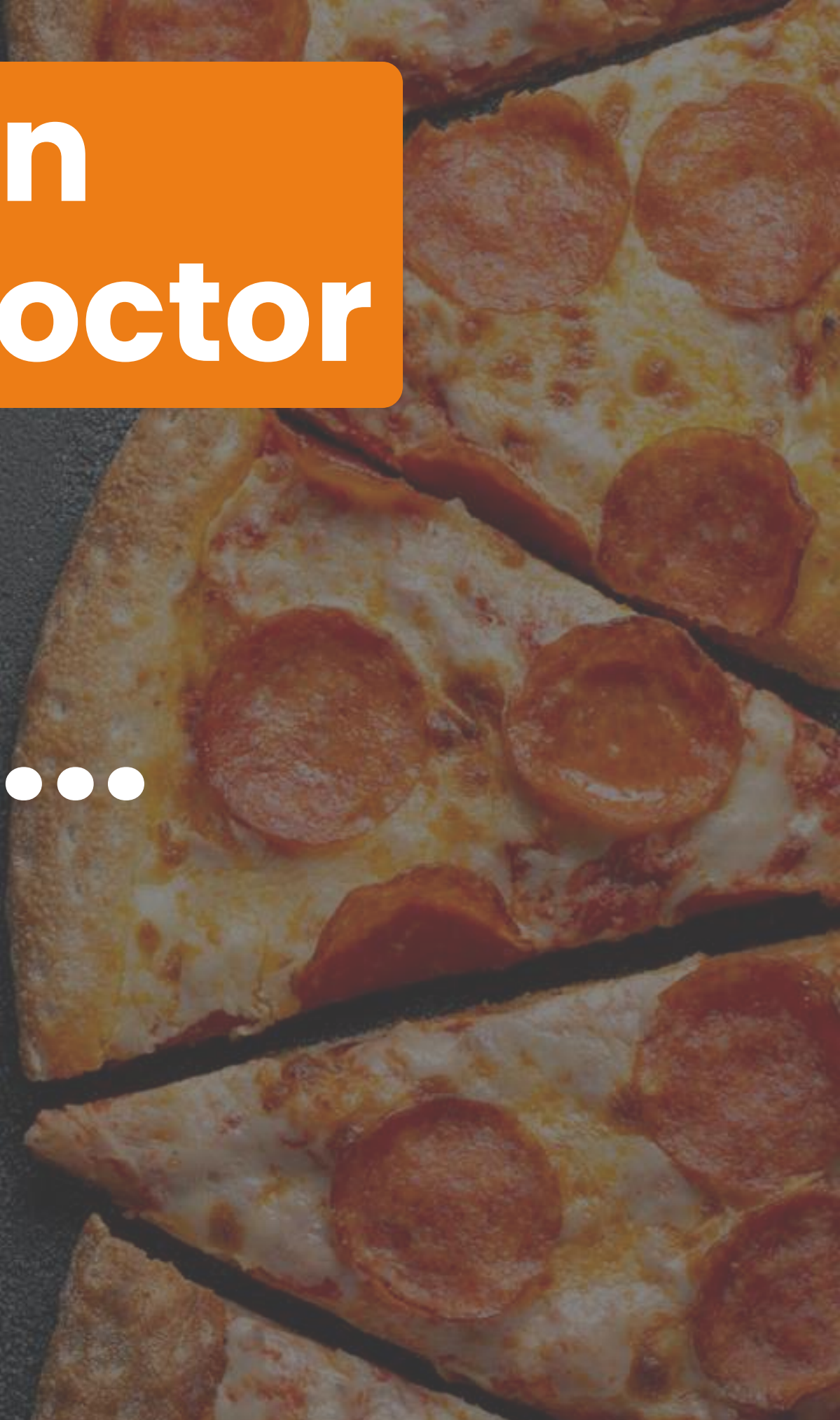
A close-up, slightly angled view of a pepperoni pizza. The pizza is cut into several slices, with the focus on the toppings of melted cheese and round pepperoni slices. The background is a dark, textured surface, possibly a table or countertop. The overall lighting is soft, highlighting the textures of the cheese and the edges of the crust.

Wisdom from an Obesity Medicine Doctor

**Nothing tastes as good as
fat loss feels...**

Wisdom from an Obesity Medicine Doctor

Except pizza...



ORTHOPEDICS AND OBESITY MEDICINE

RESOURCE LIST

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4. Berenbaum F. Beyond weight loss: GLP-1 emerges as a disease-modifying signal in osteoarthritis. Osteoarthritis Cartilage. 2025 Jun 20:S1063-4584(25)01062-3. doi: 10.1016/j.joca.2025.06.011. Epub ahead of print. PMID: 40544946.
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ORTHOPEDICS AND OBESITY MEDICINE

RESOURCE LIST

7. Al-Najim W, Raposo A, BinMowyna MN, le Roux CW. Unintended Consequences of Obesity Pharmacotherapy: A Nutritional Approach to Ensuring Better Patient Outcomes. *Nutrients*. 2025 Jun 5;17(11):1934. doi: 10.3390/nu17111934. PMID: 40507203; PMCID: PMC12157928.
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9. Ryan DH. New drugs for the treatment of obesity: do we need approaches to preserve muscle mass? *Rev Endocr Metab Disord*. 2025 May 5. doi: 10.1007/s11154-025-09967-4. Epub ahead of print. PMID: 40320499.
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ORTHOPEDICS AND OBESITY MEDICINE

RESOURCE LIST

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