

THE IMPORTANCE OF PRESCRIPTIVE EXERCISE

To prevent injury and get ready
for the skiing season!!



Goal for today:

Be able to not only have some ideas for exercises but understand the reason behind them and the mechanisms for preventing injury.



WHAT PREVENTS US FROM ENDURANCE SPORTS LONG TERM?

Overuse injuries are the most common reason for stopping endurance sports.

Causes

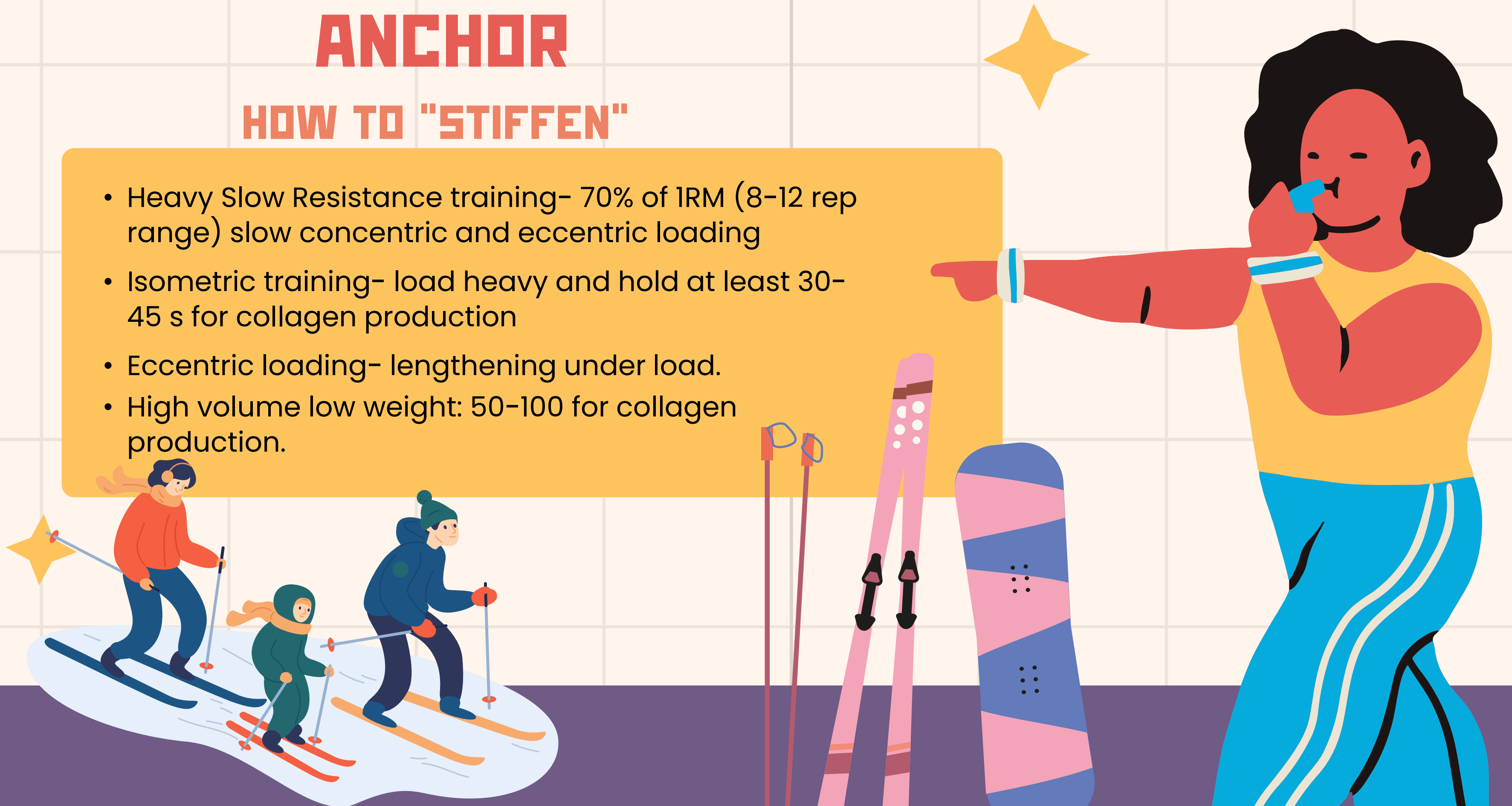
- #1. Poor technique
- #2. Overtraining/ Overloading
- #3. Weak Muscles



TENDONS ARE OUR ANCHOR

HOW TO "STIFFEN"

- Heavy Slow Resistance training- 70% of 1RM (8-12 rep range) slow concentric and eccentric loading
- Isometric training- load heavy and hold at least 30-45 s for collagen production
- Eccentric loading- lengthening under load.
- High volume low weight: 50-100 for collagen production.



NUTRITION FOR TENDON GROWTH

- Amino acids
 - Glycine- bone broth/lentils
 - Proline- non-essential- found in egg whites and legumes
- Vitamin C- Builds/converts amino acids into collagen
- Zinc- “glue” for collagen
- Copper- strengthen pre-existing collagen





WHY SO MUCH FOCUS ON TENDONS?

- Point of weakness:
 - They build slowly compared to bone and muscles
 - they are avascular in middle and deeper- specifically achilles
- They need to be trained frequently for peak growth every 2 days at least for collagen regrowth and bone growth
- Watch for high load training when taking antibiotics- higher chance of tendon tears.



BALANCE AND STABILITY

Balance is a state of equilibrium where opposing forces or elements are equal, preventing falling or instability, whether in terms of physical steadiness, equal distribution of weight or resources, or the harmony of a well-adjusted system

Stability is the ability to resist movement.

- important for ankles and hips- our more mobile joints to prevent knee injuries.
- lateral and rotational movements occur in the frontal plane

EXERCISES FOR BALANCE



- Single leg activities- will show/work together
- Coordination activities:
 - eye movements and eyes open/closed
 - reciprocal movements
 - use a metronome
- Foot posture is the foundation for standing activities
- Mix up different types of balance.

STABILITY EXERCISES

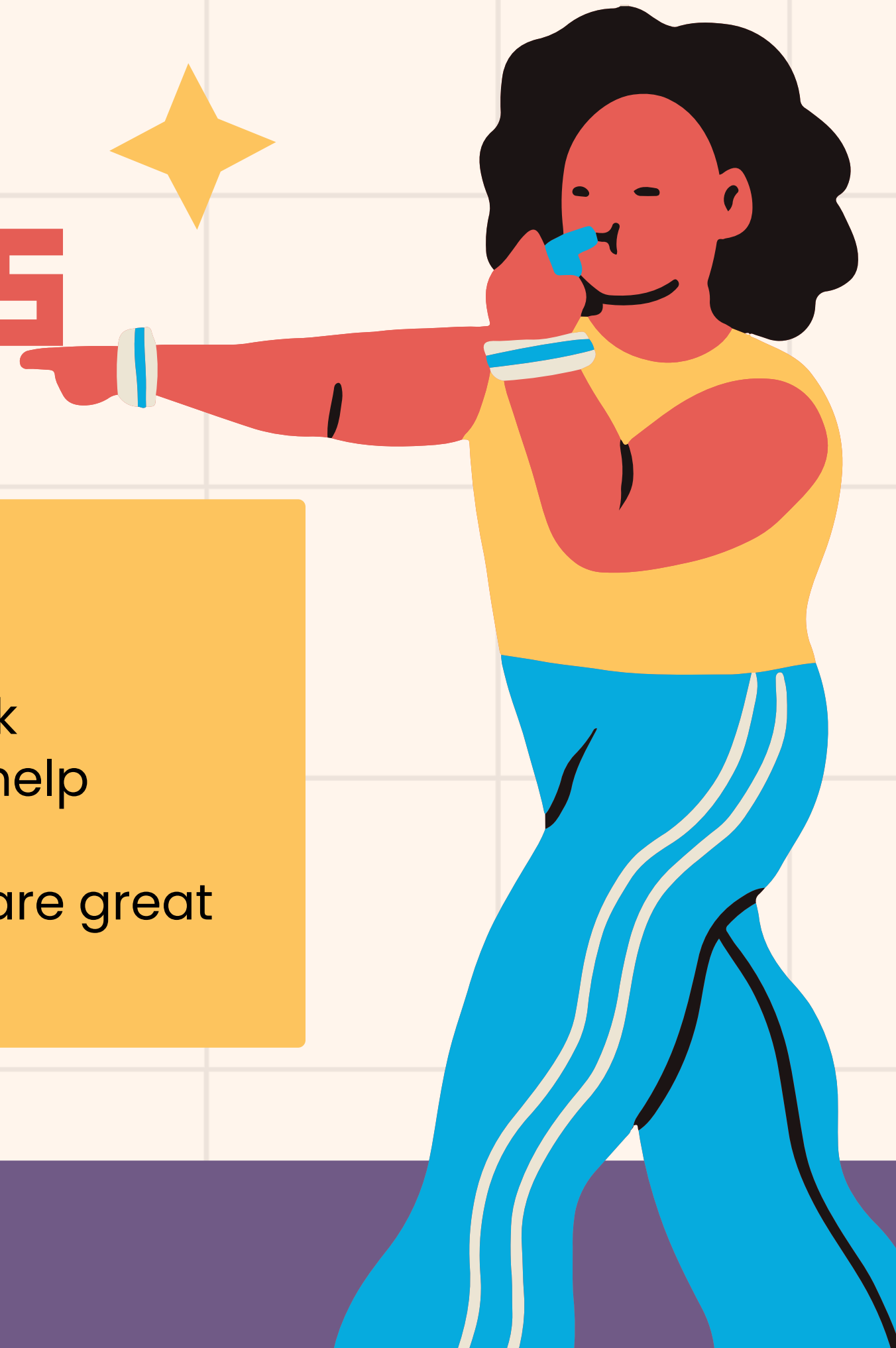
Stability ties with balance and coordination

Hip and ankle stability:

- Strength: add weight training into routine
- Single leg exercises
- Jumping/hopping
- Agility

Core stability:

- Corework vs abwork
- Glutes are life and help stabilize back
- Planks all varieties are great





EXERCISES TO TRY!!

- Single leg deadlift
- Hip airplane
- Pilates clamshell plank
- Bunny hops
- Single Leg Stance with eye movements/head movements
- Tandem walking

**LISTEN TO YOUR
BODY AND AVOID
OVEREXERTION;
TAKE BREAKS WHEN
NEEDED!!**

**THANK YOU FOR
YOUR ATTENTION!**

