

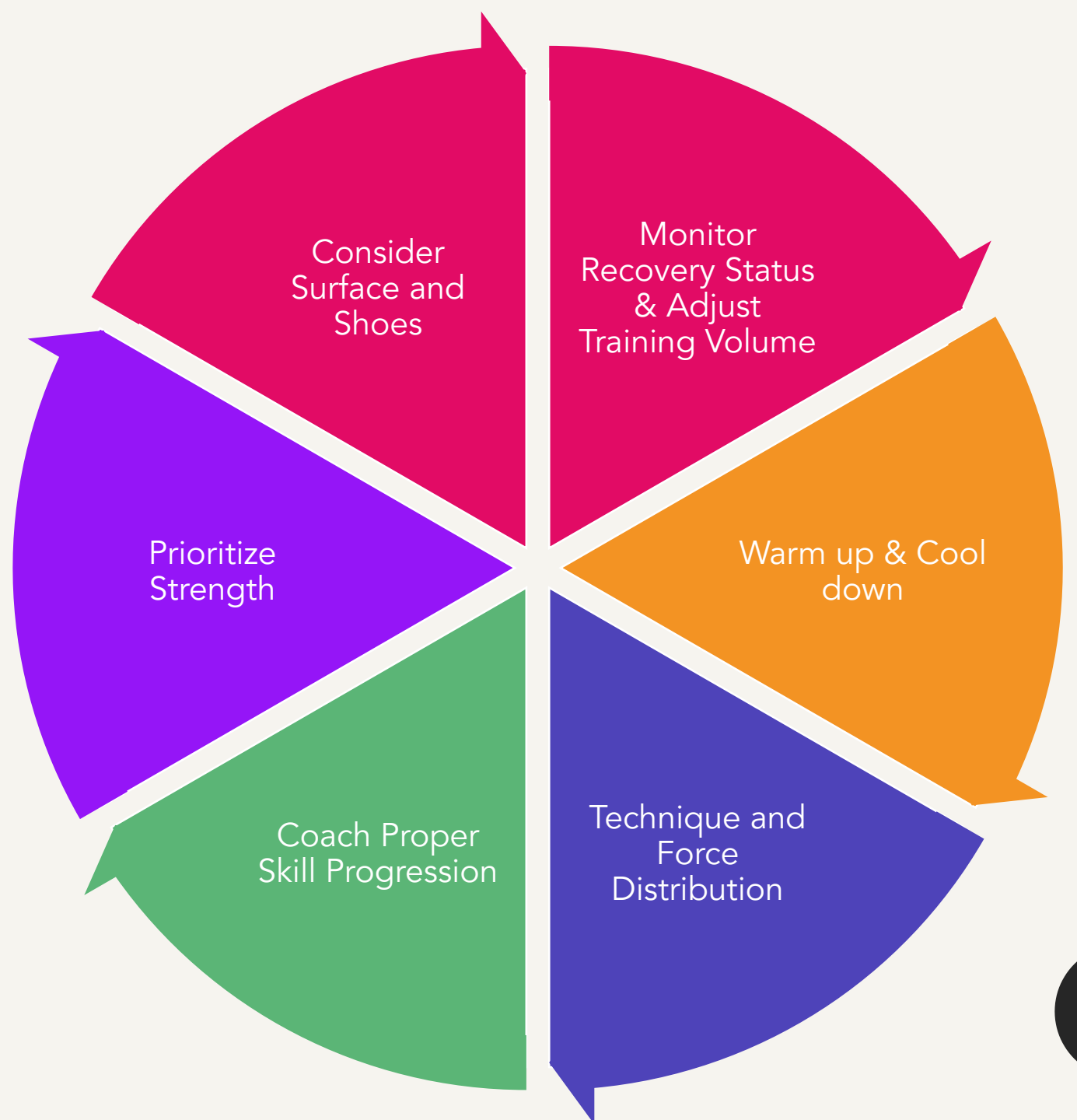
# *Principles and Strategies for Injury Prevention in Jump Rope*

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January 27, 2024



# *Injury Prevention*





*Monitoring  
Recovery Status  
& Adjusting  
Training Volume*

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# STRESS-RECOVERY-ADAPTATION

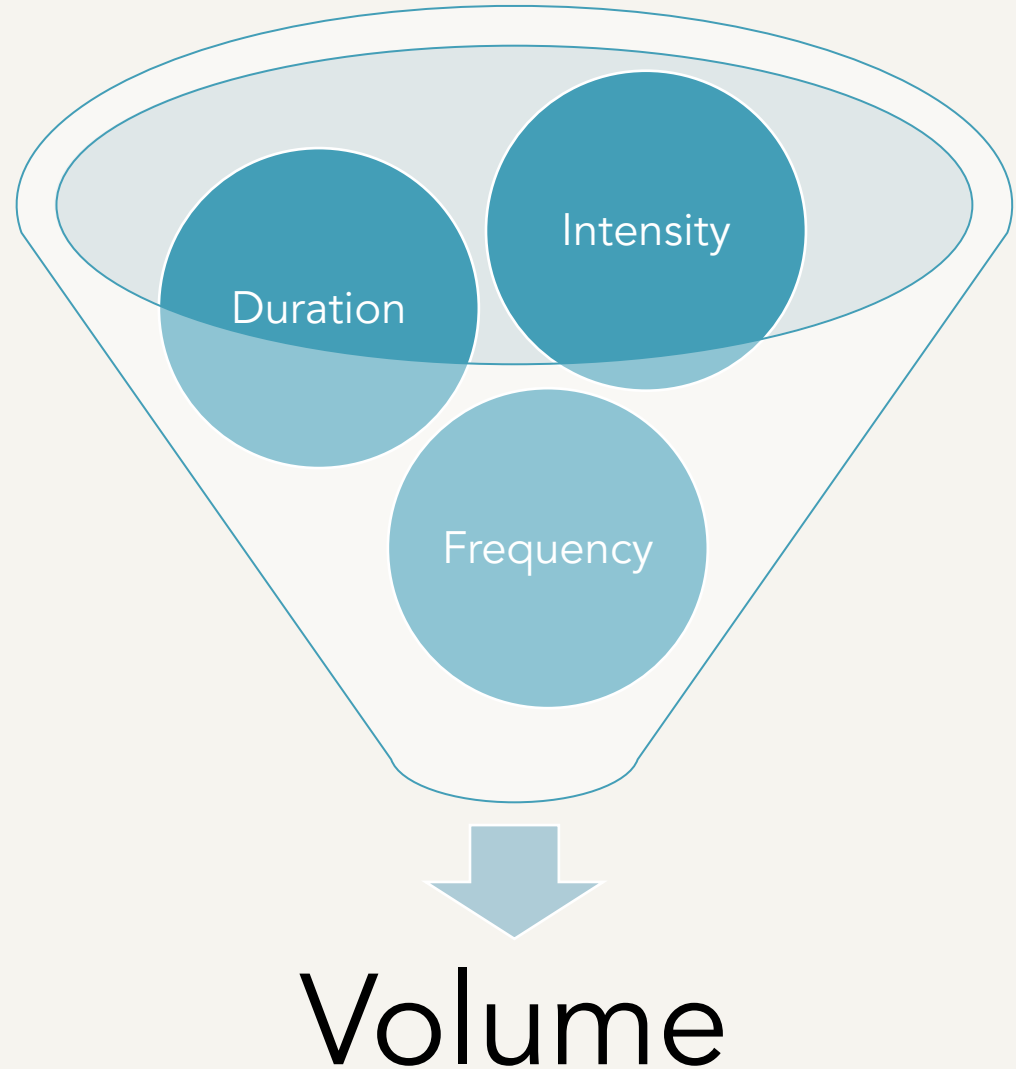


# *How do we ensure positive adaptation?*

Progress	Progress volume wisely
Build in	Build in recovery days
Monitor	Monitor recovery status
Coach	Coach your athletes on recovery methods

# *Progress volume wisely*

- E.g., 10% increase in one variable weekly/biweekly



# *Build In Recovery Days & Deload Weeks*

Can be lighter/fun day at practice, team outing, or simply a day off of regular practice

Deload weeks should have significantly lower duration, frequency, or intensity

If approaching competition and using a deload week to taper, maintain specificity but drastically reduce duration.

How do you know when you need a recovery day or deload week?

Can be pre-planned, BUT you also need to listen and observe your athletes. □

# *Monitor Recovery Status (Training Readiness)*

## Lots of variables can affect recovery and training readiness

- Physical Load from Training
- Sleep
- Nutrition and Hydration
- Growth and Maturation
  - Growth spurt tends to differ between males & females
- Cognitive and Emotional Stress

## How to monitor?

- Talk to your athletes!
- Track scores and observe performance.
- Simple questionnaires

	5	4	3	2	1	Record Score
<b>FATIGUE</b>	Very fresh	Fresh	Normal	More tired than normal	Always tired	
<b>SLEEP QUALITY</b>	Very restful	Good	Difficulty falling asleep	Restless sleep	Insomnia	
<b>GENERAL MUSCLE SORENESS</b>	Feeling great	Feeling good	Normal	Increase in soreness/tightness	Very sore	
<b>STRESS LEVELS</b>	Very relaxed	Relaxed	Normal	Feeling stressed	Highly stressed	
<b>MOOD</b>	Very positive mood	A generally good mood	Less interested in others &/or activities than usual	Snappiness at teammates, family and co-workers	Highly annoyed/irritable/down	

**Figure 1** — The well-being review sheet that was completed during the study.

McLean et al. (2010). Neuromuscular, endocrine, and perceptual fatigue responses during different length between-match microcycles in professional rugby league players. *International Journal of Sports Physiology and Performance*, 5(3), pp.367-383.

<https://adamvirgile.com/2019/04/22/everything-you-need-to-know-about-using-wellness-questionnaires-in-sport/>



# *Coach Athletes on Recovery Methods*

Get extra protein

Hydrate

Get extra sleep

Static stretching after practice

Foam rolling

Contrast showers

Manual massage

Go do something fun and relaxing!

Progressive Muscular Relaxation

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*Components of  
Practice & Skill  
Development*



# *Warm up & Cool down*

## Warm Up:

- Purpose: increase blood flow, body temp, lubricate joints, move through ROM, prepare for optimal performance
- General  Specific
- Focus on dynamic movement

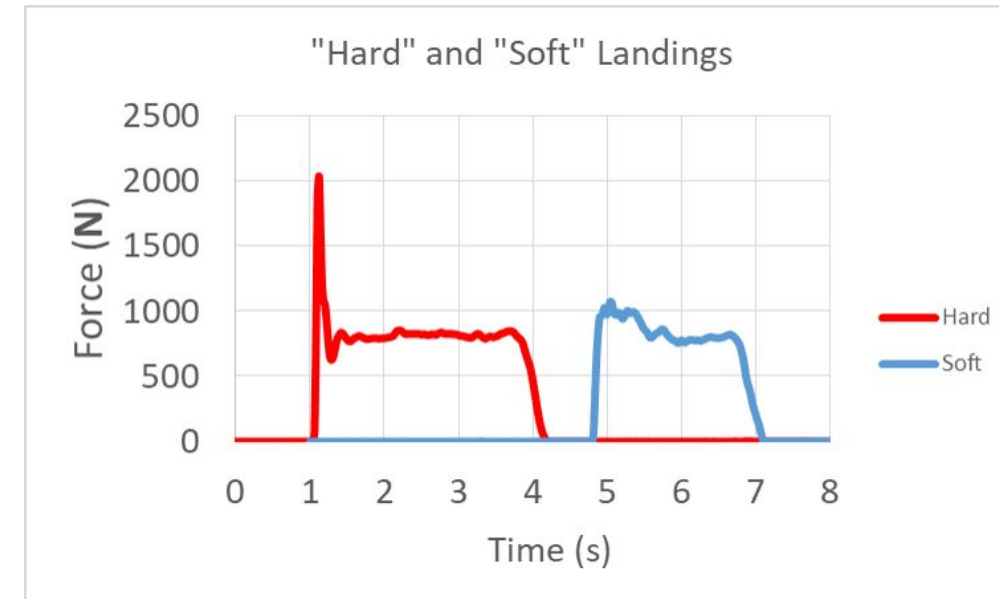
## Cool Down:

- Purpose: Gradually decrease heart rate and body temp
- Focus on static stretching

# Technique & Distributing Forces

## Improving Landing Mechanics

- Cueing (listen to your landings)
- Adequate strength
- Core strength for power skills
- Observational learning



<https://openoregon.pressbooks.pub/bodyphysics2ed/chapter/injury-prevention/>

# *Skill Progression*

*Particularly important for power and gymnastics*

*Must master the static position before adding force (e.g.,  
Handstand □ Handstand Snap Down w/o Rope □ Frog)*

*Don't forget your drills! (e.g., double unders, speed)*

# *Prioritize Strength*

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Hinging Example

- Fundamental Movements & Positions

*Squat*

*Hinging*

*Pushup*

*Overhead Press*

*Plank Position*

*Hollow Hold*

*Arch Hold*

*Lateral Movement  
(Lunging, side shuffle)*

# *Consider Jumping Surface and Shoes*

## Surface:

- Gold Standard: Suspended wood floor
- Not always an option!
- Mats can help.

## Shoes:

- Forefront cushioning
- Good structural support; many need arch support
- Individualized assessment

Be careful about abrupt changes in either variable!

# *Injury Prevention*

