What's an Erg? Basic Assessment and Treatment of Rowers

Michael Brewer, PT, DPT, CSCS

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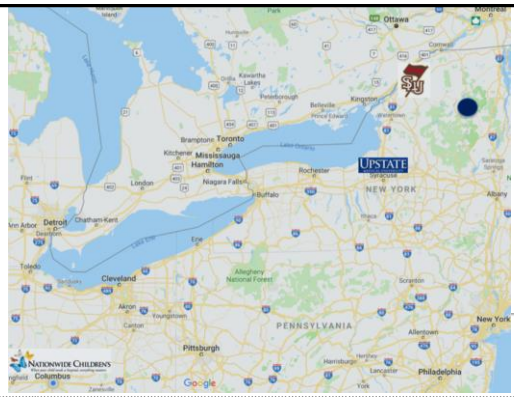

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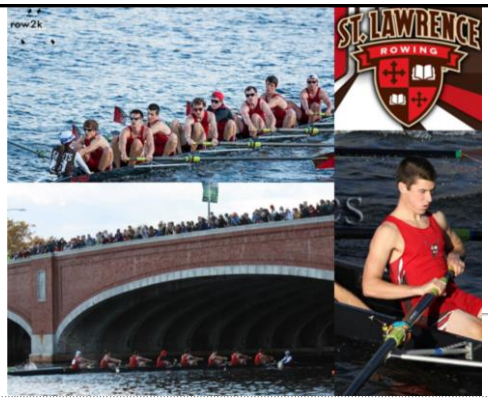

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Objectives

1. Understand rowing basics
2. Evaluate and treat rowing injuries

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Background

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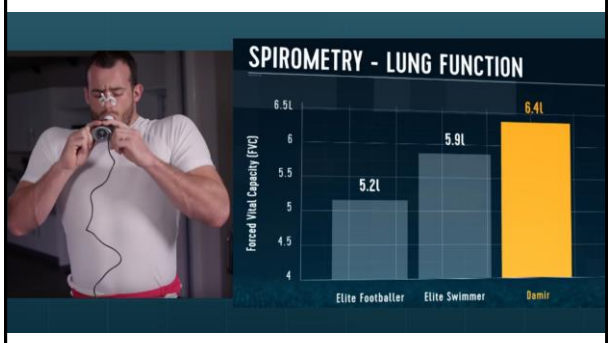

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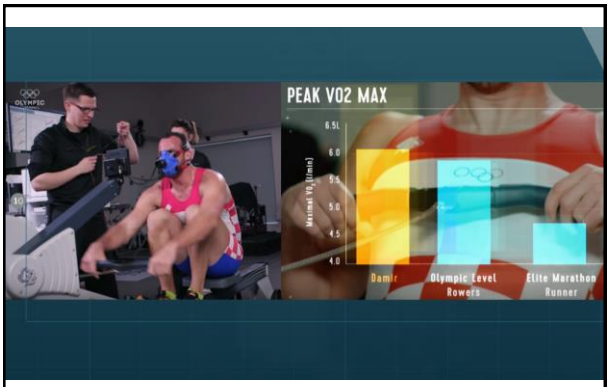

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Disciplines

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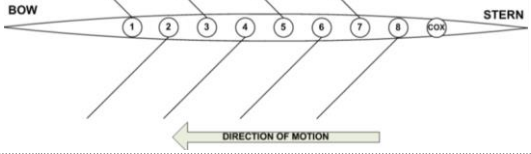
Outside the Boat



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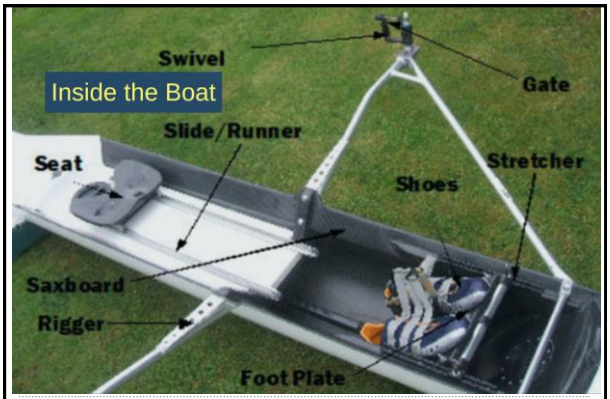

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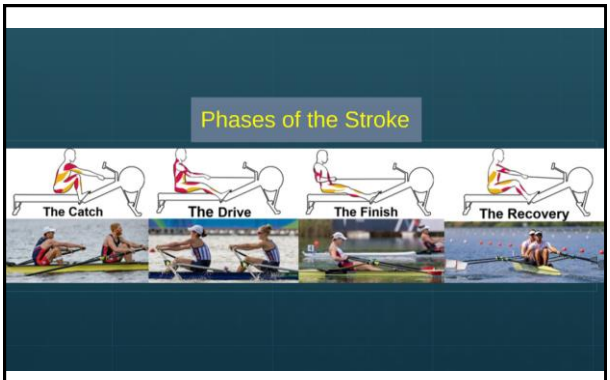

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Evaluation

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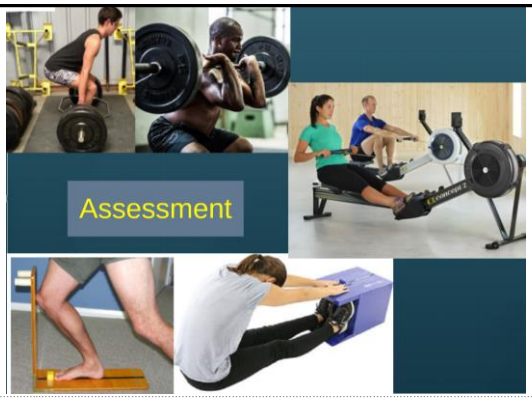

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Trunk

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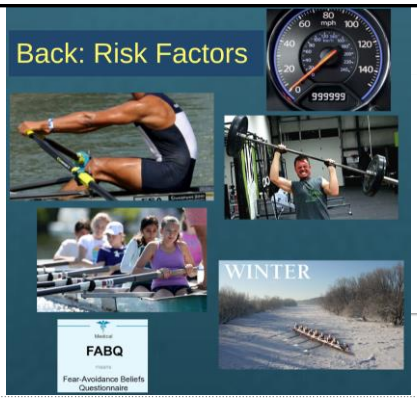

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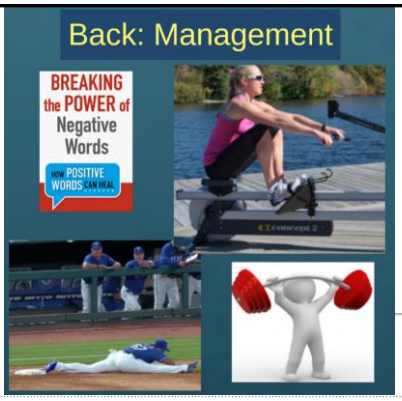

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Back: Common Erg Errors

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Rib Stress Injuries

Rib Stress Injury: Guidelines for Diagnosis and Management

GBROWINGTEAM

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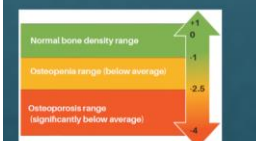
Ribs: Intrinsic Risk Factors



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Ribs: Extrinsic Risk Factors

MARATHON
42,195
meters
concept2

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Ribs: Clinical Markers





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Grading Rib Injuries

Mild
- VAS score 2-3/10[28]
- Rib pain towards end of activity
- 'Can row through it'
- 'Tightness or soreness'
- Mild tenderness
- Compression test may be negative
- May only be stiff splinted rib cage without pain
- Often not all clinical markers[8] present

Moderate
- VAS score 4-6/10[28]
- Rib pain on movements
- Unable to complete training/racing
- Tender on palpation and compression test positive
- Most clinical markers[8] will be present

Severe
- VAS score 7-10/10[28]
- Rib pain at rest
- Painful on deep inspiration/coughing
- Pain on simple movements/lying/reaching
- Unable to train or race
- Compression test positive
- All clinical markers[8] likely to be present

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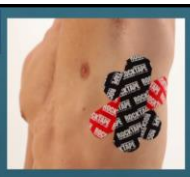
Rib Injury: Management

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Upper Extremity

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Upper Extremity: Risk Factors

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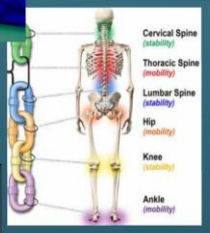
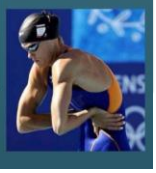
Upper Extremity: Management





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Upper Extremity: Injuries and Risk Factors

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Upper Extremity: Management

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Lower Extremity

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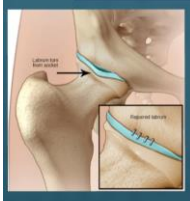
Lower Extremity:
Common Injuries



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Lower Extremity:
Risk Factors and Symptoms

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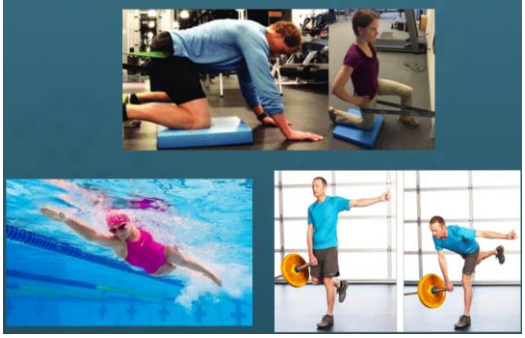
Lower Extremity: Management



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Lower Extremity: Common Erg Errors

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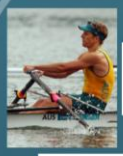
Energy Availibility



RED-S CAT™
Relative Energy Deficiency in Sport (RED-S) Clinical Assessment Tool (CAT)

HIGH RISK RED LIGHT	MODERATE RISK YELLOW LIGHT	LOW RISK GREEN LIGHT
- No competition - No training - Use of written contract	- May train as long as he/she is following the treatment plan - May compete once medically cleared under supervision	- Full sport participation

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Integumentary

MRSA FACT SHEET

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But, why have an erg?

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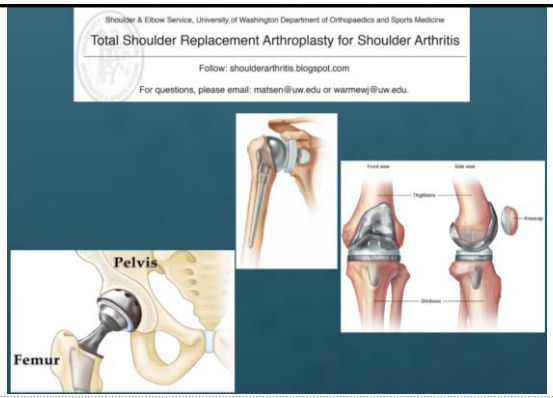

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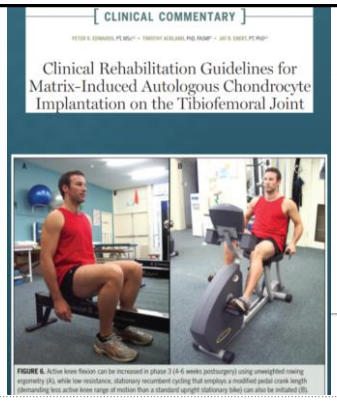

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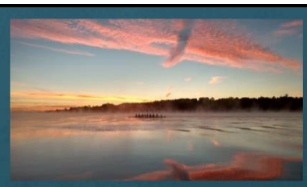

Summary

1. Rowing=high aerobic/anaerobic demands
2. Screen, ask rowing-specific questions
3. Risks=training errors, impairments
4. Rehab=grade volume, modify technique, address mobility, strengthen, cross-train

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Questions

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Rowing Lab

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Objectives

1. Assess erg technique
2. Prescribe exercises for rowers

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Exercise Prescription for Rowers

50-90% 1 RM
3-8 Reps, 3-4 Sets
2' Rest
2-3x/Week, > 8 wks

RPE	Description	- Percentage of 1RM, 3RM, 5RM
10	Max Effort, at or very near 1RM	100%, 92%, 86%
9.5	Near max effort, maybe 1 more rep	98%, 91%, 85%
9	Very Hard Effort, definitely one more rep	96%, 89%, 84%
8.5	Very Challenging, maybe could have done 2 more reps	94%, 88%, 82%
8	Very Challenging , definitely could have done 2 more	92%, 86%, 81%
7.5	Moderate, but maybe could have done 3 more reps	91%, 85%, 80%
7	Moderate, definitely could have done 3 more reps	89%, 84%, 70%
6.5	Warm up weight, moves very well	88%, 82%, 77%
6	Almost insignificant, an easy warm up weight	87%, 80%, 75%

Day	Exercise Type	Intervention	Intensity	Sets	Reps	Rest
Monday	Compound Lift	Back Squat	RPE 6	4	~6-8	3 min
	Single Limb	Skater squat	RPE 8	3	~6-10	2 min
	Accl - Hamstrings	Single leg deadlift	RPE 8	3	~6-10	2 min
	Accl - Plantar flexion	Barbell heel raises	RPE 8	3	~6-10	2 min
	Power	CMJ	RPE < 4	5	5	3 min
Thursday	Compound Lift	Deadlift	RPE 6	4	~6-8	3 min
	Single Limb	Split squat	RPE 8	3	~6-10	2 min
	Accl - Hamstrings	Nordic hamstrings	RPE 8	3	~6-10	2 min
	Accl - Plantar flexion	Barbell heel raises	RPE 8	3	~6-10	2 min
	Power	Dead ball throws	RPE 9	4	2	4 min

Return-to-Row Progression

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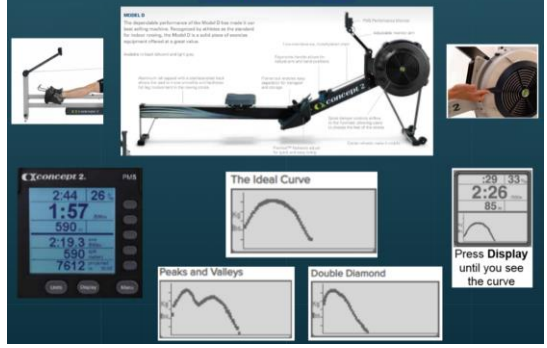
Erg Setup



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Demonstration

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Exercises

1. Warm up
2. Mobility: Trunk, hips, ankles
3. Foundational lifts
4. Accessory lifts
5. Power

Refer to handout!

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