

Relative energy deficiency in sport (RED-S) – practical implications for the youth

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LOW IN ENERGY - **RED-S** Relative Energy Deficiency in Sport



– A BIG CHALLENGE

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ENERGY AVAILABILITY



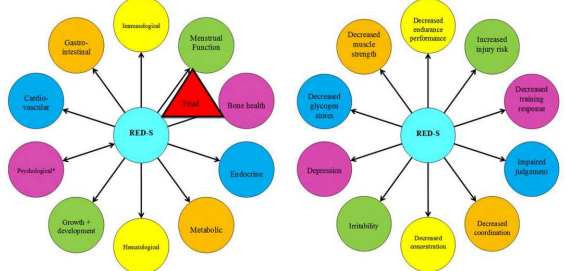
Energy Availability Concept Matching Energy Intake with Energy Demand

Energy Intake	Insufficient energy intake	Energy Intake matched with energy demand	Excessive training load
Energy requirement for life processes	Energy demand for training load	Energy demand for training load	Energy demand for training load
Reduced energy available for life processes	Sufficient energy available for life processes	Reduced energy available for life processes	Reduced energy available for life processes
Intentional	Adaptive	Unintentional	Unintentional
Low Energy Availability Restricting energy intake to the hope that becoming even leaner might improve performance	Energy Availability Continuously adjusting energy intake to match training load	Low Energy Availability Failing to increase energy intake to match a higher training load	

Low Energy Availability forces the body to trigger hormonal responses that adversely affect normal life processes, leading to negative health and performance consequences

Dr Nicky Keay nickykeayfitness.com
Nicola Keay, and Gavin Francis Br J Sports Med doi: 10.1136/bjsports-2019-100611

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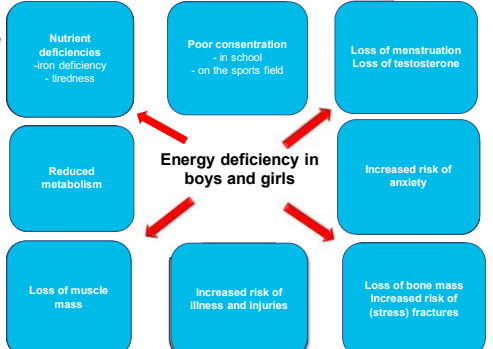


Mountjoy et al. IOC consensus statement Update (2018) on RED-S

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Adapted from Ina Garthe, Olympiatoppen

Energy deficiency in boys and girls



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PERFORMANCE?



Nicky Keay, 2017

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watt kcal fat% BMI km VO2

-00:00.01

Elite sport is all about pushing boundaries, it's about details, numbers, comparison, performance and perfectionism.

Elite sport and eating disorders have cultural compatibility – it's not surprising that the prevalence is high

Finns Skårderud, professor and psychiatrist, Villa Sult & Olympiatoppen

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HOW BIG IS THE PROBLEM?

«I have had thoughts about losing weight»

Response	Percentage
Helt enig	27%
Litt enig	18%
Litt uenig	13%
Helt uenig	42%

Mentimeter questionnaires in 17 sport colleges 2019-2020, Total 813 students.

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HOW BIG IS THE PROBLEM?

«I have periodically on purpose tried to eat less»

Response	Percentage
Helt enig	16%
Litt enig	17%
Litt uenig	12%
Helt uenig	55%

Mentimeter questionnaires in 17 sport colleges 2019-2020, Total 812 students.

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HOW BIG IS THE PROBLEM?

«I have experienced comments on my body that I found hurtful»

Response	Percentage
Helt enig	26%
Litt enig	21%
Litt uenig	16%
Helt uenig	37%

Mentimeter questionnaires in 17 sport colleges 2019-2020, Total 816 students.

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HOW BIG IS THE PROBLEM?

4.5 x higher prevalence of bone injuries!

Eumenorrheic (n=22, 63%)	48% (n=10)	32% (n=7)	21% (n=5)
Amenorrheic (n=13, 37%)	31% (n=4)	23% (n=3)	46% (n=6)
Normal TES (n=14, 80%)	64% (n=9)	29% (n=4)	7%
Low TES (n=10, 40%)	30% (n=3)	10% (n=1)	60% (n=6)

Heikura et al. Int J Sport Nutr Exerc Metab. 2018

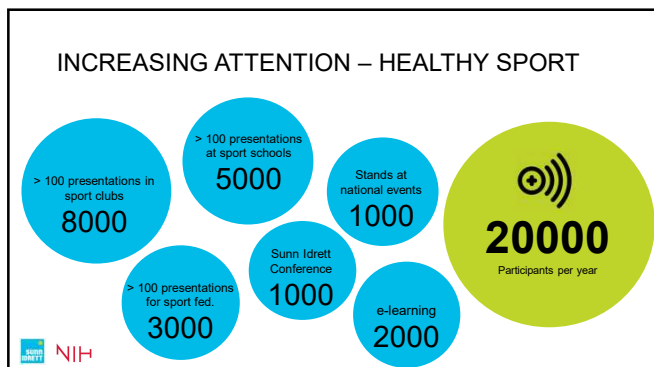
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FOCUS ON THE YOUNG ATHLETES

Key features: Peak Bone Mass, Menopause, Low Bone Mass, Osteoporosis, Suboptimal Lifestyle Factors.

Weaver et al. Osteoporos Int 2016

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Trenger du noen å snakke med?

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