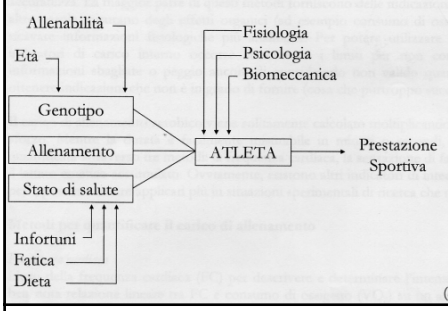
CAVALESE

3 agosto 2018

Ruolo e compiti del medico di squadra
La gestione dello staff sanitario

Piero Benelli – Medico squadra nazionale seniores maschile

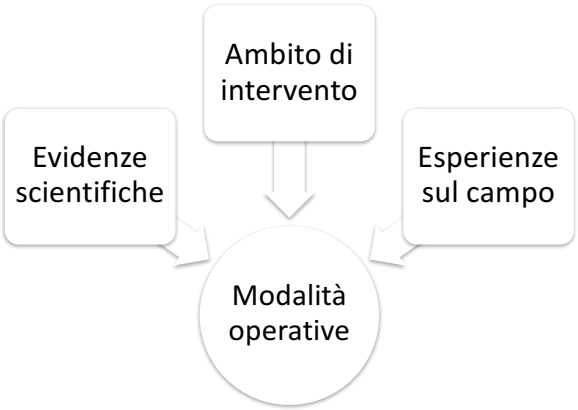
La prestazione sportiva è un fenomeno multifattoriale che integra diversi aspetti alcuni dei quali allenabili (fisiologici, psicologici e biomeccanici), altri che si possono insegnare (tecnica e tattica) ed altri ancora al di fuori del controllo dell'atleta e dell'allenatore.



(Smith, 2003)

I punti chiave

- Assistenza medica generale
- Alimentazione
- Integrazione
- Antidoping
- Gestione del recupero e dei carichi di lavoro
- Gestione del trauma: prevenzione, terapia e riabilitazione
- Costruzione e gestione dello staff sanitario
- La comunicazione all'interno degli staff



I livelli di intervento

- Squadra Nazionale
- Club (alto/medio livello)
- Club “dilettantistico”
- Settore giovanile

Assistenza medica generale

- Anamnesi ed informazioni – Cartelle cliniche
- Programma di prevenzione / gestione
- Controllo peso, % grasso corporeo, etc.
- Analisi ematochimiche periodiche
- Idoneità agonistica
- Assistenza sanitaria generale
- Gestione del recupero e dei trasferimenti

Anamnesi - Informazioni

- Scheda informativa
- Scheda di entrata
- Scheda di uscita

Scheda n.1

- Informazioni su:
  - Antropometria
  - Idoneità
  - Problematiche alimentari
  - Problematiche integrative
  - Problematiche traumatologiche
  - Problematiche mediche (allergie, uso di farmaci,etc.)
  - Anamnesi recente
  - Trattamenti e lavori abituali
  - Utilizzo di tutori, plantari, bendaggi, etc.
  - Procedure TUE attivate

Scheda n.2

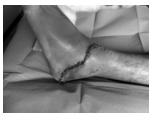
- Dati antropometrici
- Anamnesi recente
- Esame obiettivo
- Problematiche traumatologiche principali
- Indicazioni per la gestione

Scheda n.3

- Dati antropometrici
- Eventuali infortuni e/o problematiche traumatologiche
- Esami diagnostici effettuati
- Trattamenti (farmacologici, fisioterapici, etc.) effettuati
- Integrazioni effettuate
- Test di valutazione effettuate
- Note

Staff societari

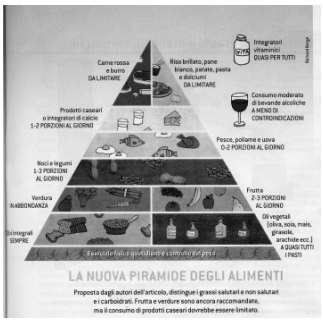
- Trasmissione delle informazioni (selezionare)
- Duplicazione degli esami e dei referti
- Cfr. fra operatori dello staff (?!)
- Gestione degli esami diagnostici
- Schede iniziali e successive
- Foto e documentazione
- Gestione dei rapporti



FIPAV 2018 - Analisi ematologiche

- Emocromo con formula
- VES
- Glicemia
- Creatininemia
- GOT
- GPT
- Bilirubinemia (dir. e ind.)
- Sideremia
- Ferritina
- Colesterolemia
- Col. HDL
- Trigliceridemia
- Elettrforesi proteica
- CPK
- Proteina C r.
- Uricemia
- Transferrinemia
- Elettroliti sierici
- TSHreflex
- Testosterone
- Cortisolemia
- Es. urine standard

Alimentazione



IL RISTORANTE – Villaggio Olimpico





IL RISTORANTE – Villaggio Olimpico



IL RISTORANTE


IL RISTORANTE

Integrazione

Supplements and Sports

DAVID M. JENKINSON, DO, and ALLISON J. HARBERT, MD, *Department of Family Medicine, University of Tennessee College of Medicine–Chattanooga Unit, Chattanooga, Tennessee*

Use of performance-enhancing supplements occurs at all levels of sports, from professional athletes to junior high school students. Although some supplements do enhance athletic performance, many have no proven benefits and have serious adverse effects. Anabolic steroids and ephedrine have life-threatening adverse effects and are prohibited by the International Olympic Committee and the National Collegiate Athletic Association for use in competition. Blood transfusions, androstenedione, and dehydroepiandrosterone are also prohibited in competition. Caffeine, creatine, and sodium bicarbonate have been shown to enhance performance in certain contests and have few adverse effects. No performance benefit has been shown with amino acids, beta-hydroxy-beta-methylbutyrate, chromium, human growth hormone, and iron. Carbohydrate-electrolyte beverages have no serious adverse effects and can aid performance when used for fluid replacement. Given the widespread use of performance-enhancing supplements, physicians should be prepared to counsel athletes of all ages about their effectiveness, safety, and legality. (*Am Fam Physician.* 2008;78(9):1039-1046. Copyright © 2008 American Academy of Family Physicians.)

SORT: KEY RECOMMENDATIONS FOR PRACTICE

Clinical recommendations	Evidence rating	References
Evidence fails to show enhanced athletic performance with amino acids, beta-hydroxy-beta-methylbutyrate, chromium, human growth hormone, and iron.	B	4-6, 17, 18, 26, 27, 36-39
Evidence shows dangerous adverse effects with use of anabolic steroids, blood transfusion, erythropoietin, ephedrine, and pseudoephedrine.	B	19, 32, 33, 45-50
Evidence demonstrates a contest-specific athletic performance enhancement with caffeine, carbohydrate-electrolyte beverages, creatine, and sodium bicarbonate.	B	21-25, 28, 29, 40-42

A = consistent, good-quality patient-oriented evidence; B = inconsistent or limited-quality patient-oriented evidence; C = consensus, disease-oriented evidence, usual practice, expert opinion, or case series. For information about the SORT evidence rating system, go to http://www.aafp.org/afpsort.xml.

Table 1. Effectiveness and Legal Status of Supplements Used in Sports

Supplement	Postulated effect	Evidence of effectiveness	Adverse effects	Legal status
Amino acids[4-6]	Increase growth hormone levels	No effect	Minimal	Legal
Anabolic steroids[7-9]	Increase lean muscle mass	Effective	Significant and dangerous	Illegal
Androstenedione and dehydroepiandrosterone[10-13]	Increase testosterone and lean muscle mass	No effect	Significant	Prohibited by IOC[14] and NCAA[15] Androstenedione is illegal under the Anabolic Steroid Control Act of 2004[16]
Beta-hydroxy-beta-methylbutyrate[17,18]	Decrease protein breakdown and increase synthesis	No effect	None, but long-term evidence lacking	Legal
Blood transfusion and erythropoietin[19,20]	Increase endurance and oxygen delivery	Effective	Significant and dangerous	Prohibited by IOC[14] and NCAA[15]
Caffeine[21-25]	Increase energy and decrease fatigue	Effective	Minimal	Prohibited by IOC[14] and NCAA[15] above urinary concentrations of 12 mcg per mL and 15 mcg per mL, respectively
Carbohydrate-electrolyte beverages[40,41]	Increase energy and decrease fatigue	Effective	None	Legal
Chromium[26,27]	Increase lean muscle mass	No effect	Potentially dangerous, but long-term evidence lacking	Legal
Creatine[28,29]	Improve muscle energy and strength	Effective in limited contexts	Minimal	Legal
Ephedrine and pseudoephedrine[30-38]	Increase energy and decrease fatigue	Mixed, but mostly negative	Significant and dangerous	Prohibited by IOC[14] and NCAA[15]
Human growth hormone[39]	Increase muscle protein synthesis and strength	No effect; lack of evidence	Significant and dangerous	Illegal
Iron[27,28]	Increase energy and general performance	No effect unless deficiency is present	None below recommended dietary allowance dosing; toxicity above this level	Legal
Sodium bicarbonate[40-42]	Increased buffering capacity	Effective in limited contexts	Minimal	Legal

IOC = International Olympic Committee; NCAA = National Collegiate Athletic Association.
Information from references 4 through 42.

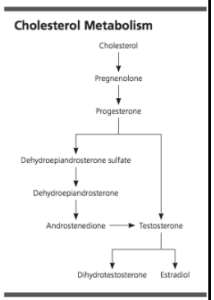


Figure 1. Summary of the endogenous metabolism of cholesterol into multiple hormones. Some of the intermediaries are used as supplements to promote physical performance.

DEFINIZIONE di INTEGRATORE ALIMENTARE

prodotto destinato a un' alimentazione particolare

IMPIEGO : fornire un supplemento di nutrienti
con azione "protettiva" o "trofica"
allo scopo di ottimizzare il metabolismo
e le funzioni fisiologiche dell' organismo

COSA DICE LA LEGISLAZIONE

Decr. Leg. n° 111 del 27 gennaio 1992

art. 1 - comma 1 - gli integratori sono prodotti alimentari che, per la loro particolare composizione o per il particolare processo di fabbricazione hanno le seguenti caratteristiche :

a) si distinguono nettamente dagli alimenti di uso corrente;
b) sono adatti all' obiettivo nutrizionale indicato;

comma 2 - i prodotti devono rispondere alle esigenze nutrizionali di persone in condizioni fisiologiche particolari per cui possono trarre benefici dall' assunzione controllata di talune sostanze negli alimenti

INTEGRATORI ALIMENTARI

D.L. 21-V-2004, n.169 attuaz.Direttiva 2002/46/CE

Art. 1 – Definizione
1. "…prodotti alimentari destinati ad integrare la comune dieta e che costituiscono una fonte concentrata di sostanze nutritive, quali vitamine o minerali, o di altre sostanze aventi un effetto nutritivo o fisiologico, in particolare ma non in via esclusiva aminoacidi, ac. grassi essenziali, fibre ed estratti di origine vegetale, sia monocomposti che pluricomposti, in forme predosate"

PRODOTTI DESTINATI AD UNA ALIMENTAZIONE PARTICOLARE

D.L. n° 111 del 27 Gennaio 1992

Procedure per commercializzazione, autorizzazione e notifica etichetta

Prodotti Autorizzati: il Ministero della Salute provvede all' analisi e verifica del prodotto (corrispondenza tra etichetta e contenuto)

Prodotti Notificati: la responsabilità è dell' azienda produttrice che presenta al Ministero un' etichetta con la dichiarazione dei contenuti

Notifica al Ministero della Salute

La notifica è solo una comunicazione scritta.

L' azienda comunica al Ministero della Salute che immette in commercio un nuovo prodotto, sottoponendo l' etichetta al giudizio dei funzionari.

Vale la regola del "silenzio assenso"

Se entro 90 giorni non arrivano comunicazioni è OK

Le regole cambiano spesso

I funzionari sono spesso in grave ritardo nel dare risposte

Campi di applicazione degli integratori

IN MEDICINA ⟷ **INTEGRATORII** ⟷ **NELLO SPORT**

- Per combattere l'anemia
- Per migliorare la microcircolazione
- Per contrastare l'astenia
- Per recuperare il sonno
- Per ritardare il decadimento cerebrale
- Per stimolare le difese immunitarie
- Per controllare il colesterolo
- Per regolarizzare l'intestino
- Per contrastare la depressione …

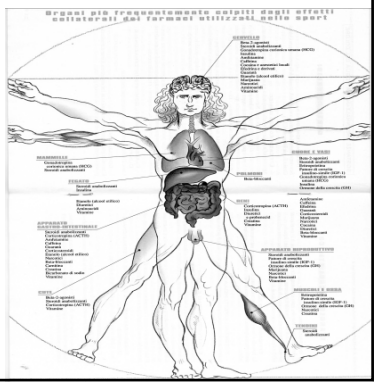
- Per ottimizzare lo stato nutrizionale
- Per mantenere più a lungo lo stato di forma ed efficienza
- Per recuperare più velocemente
- Per ottimizzare la performance
- Per contrastare il decadimento muscolare e favorire l'anabolismo
- Per contrastare lo stress ossidativo
- Per coadiuvare scatto e resistenza
- Per migliorare il trofismo delle cartilagini

CARATTERISTICHE "IDEALI" DI UN INTEGRATORE

- **INNOCUO**
- **"LEGALE"**
- **NECESSARIO**
- **EFFICACE**

UTILIZZO DEGLI INTEGRATORI E PRODOTTI DIETETICI PER LO SPORT

- **INUTILE**
- **IRRAZIONALE**
- **DISEDUCATIVO**
- **PERICOLOSO**



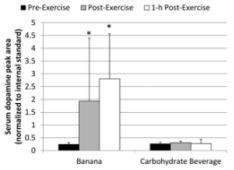


Figure 1. Serum dopamine peak area (normalized to internal standard) was higher in BAN compared to CHO following 75-km cycling (interaction effect, P<0.001). * P<0.025, difference in change from pre-exercise when comparing BAN and CHO. Data shown as mean±SD.
doi:10.1371/journal.pone.0037479.g001

PLOS one

Bananas as an Energy Source during Exercise: A Metabolomics Approach

David C. Nieman[1]*, Nicholas D. Gillitt[2], Dru A. Henson[3], Wei Sha[4], R. Andrew Shanely[1], Amy M. Knab[1], Lynn Cialdella-Kam[1], Fuxia Jin[2]

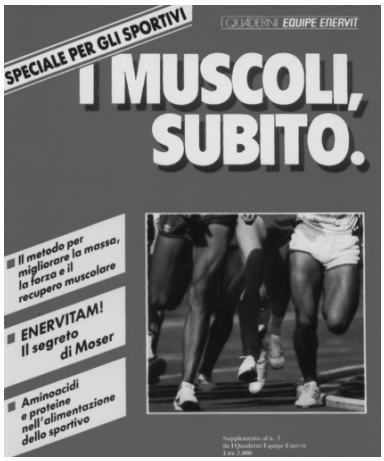
1 Human Performance Laboratory, Appalachian State University, North Carolina Research Campus, Kannapolis, North Carolina, United States of America, 2 Dole Nutrition Research Laboratory, North Carolina Research Campus, Kannapolis, North Carolina, United States of America, 3 Department of Biology, Appalachian State University, Boone, North Carolina, United States of America, 4 Bioinformatics Services Division, University of North Carolina at Charlotte, North Carolina Research Campus, Kannapolis, North Carolina, United States of America

Abstract

This study compared the acute effect of ingesting bananas (BAN) versus a 6% carbohydrate drink (CHO) on 75-km cycling performance and post-exercise inflammation, oxidative stress, and innate immune function using traditional and metabolomics-based profiling. Trained cyclists (N = 14) completed two 75-km cycling time trials (randomized, crossover) while ingesting BAN or CHO (0.2 g/kg carbohydrate every 15 min). Pre-, post-, and 1-h post-exercise blood samples were analyzed for glucose, granulocyte (GR) and monocyte (MO) phagocytosis (PHAG) and oxidative burst activity, nine cytokines, F_2-isoprostanes, ferric reducing ability of plasma (FRAP), and metabolic profiles using gas chromatography-mass spectrometry. Blood glucose levels and performance did not differ between BAN and CHO (2:41±0:22, 2.2K±0.1 h, P = 0.258). F_2-isoprostanes, FRAP, IL-10, IL-2, IL-6, IL-8, TNFα, GR-PHAG, and MO-PHAG increased with exercise, with no trial differences except for higher levels during BAN for IL-10, IL-6, and FRAP (interaction effects, P = 0.003, 0.004, and 0.012). Of 103 metabolites detected, 56 had exercise time effects, and only one (dopamine) had a pattern of change that differed between BAN and CHO. Plots from the PLS-DA model visualized a distinct separation in global metabolic scores between time points (R^2Y(cum) = 0.869, Q^2(cum) = 0.766). Of the top 15 metabolites, five were related to liver glutathione production, eight to carbohydrate, lipid, and amino acid metabolism, and two were tricarboxylic acid cycle intermediates. BAN and CHO ingestion during 75-km cycling resulted in similar performance, blood glucose, inflammation, oxidative stress, and innate immune levels. Aside from higher dopamine in BAN, shifts in metabolites following BAN and CHO 75-km cycling time trials indicated a similar pattern of heightened production of glutathione and utilization of fuel substrates in several pathways.

- Spesso l'assunzione di integratori non avviene su basi scientifiche e gli effetti ricercati non sono spesso documentati
- L'assunzione delle dosi raccomandate di molti integratori, isolatamente, non ha probabilmente effetti nocivi sulla salute, ma gli effetti sull'assunzione di alte dosi degli stessi non è ben conosciuta

- Spesso gli atleti assumono contemporeaneamente più di un integratore, ma si sa molto poco su eventuali effetti dannosi sull'assunzione di più integratori
- Alcuni integratori possono essere sicuri ed efficaci assunti singolarmente, ma possono avere effetti indesiderati e dannosi quando presi con altre sostanze
- Necessitano nuovi studi per determinare la dose ottimale, le modalità e i tempi di assunzione dei vari integratori



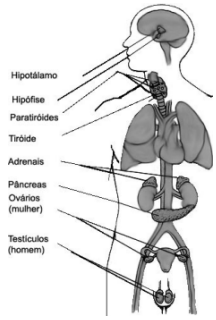
I rischi

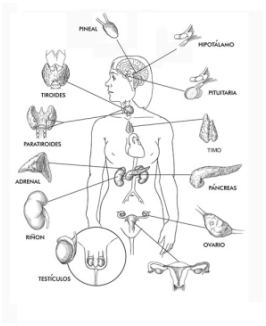
- Sovradosaggio
- Assunzione contemporanea di più integratori e di mix non controllati
- Messaggi fuorvianti
- Dipendenza psicologica
- No "more must be better"!
- L'integrazione non fa la differenza, è un supporto per la prestazione dell'atleta che deve essere valutato e utilizzato basandosi su criteri adeguati (necessità, utilità, efficacia, sicurezza, etc.)

Nazionale Volleyball maschile – Integrazione 2018

- Giornata tipo di allenamento (v. allenamento tecnico / sessione di preparazione fisica)
  - Arginina + BCAA
  - Omega3
  - Sali minerali e barrette (proteiche/energetiche)
- Partita
  - Prima e durante: energetici (carboidrati) di varia tipologia
  - Dopo: integratori multisostanze per recupero
- ***Altre integrazioni: da discutere con il medico in base alle esigenze individuali***

Educazione e lotta al doping





CODICE MONDIALE ANTIDOPING
STANDARD INTERNAZIONALE

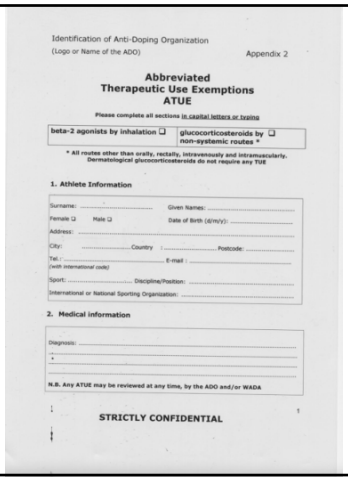
LISTA DELLE SOSTANZE E METODI PROIBITI

IN VIGORE DAL 1° GENNAIO 2018

Lista Wada

- Sostanze sempre proibite
- Sostanze proibite in-competition
- Sostanze proibite in particolari sport
- Metodi proibiti

In Italia 2000 test circa/anno
2% positività di cui 44% cannabinoidi

Identification of Anti-Doping Organization
(Logo or Name of the ADO)

Appendix 2

Abbreviated Therapeutic Use Exemptions ATUE

Please complete all sections in capital letters or typing

beta-2 agonists by inhalation ❑ | glucocorticosteroids by ❑ non-systemic routes *

* All routes other than orally, rectally, intravenously and intramuscularly. Dermatological glucocorticosteroids do not require any TUE

1. Athlete Information

Surname: ..... Given Names: .....
Female ❑ Male ❑ Date of Birth (d/m/y): .....
Address: .....
City: ..... Country : ..... Postcode: .....
Tel.: ..... E-mail : .....
(with international code)
Sport: ..... Discipline/Position: .....
International or National Sporting Organization: .....

2. Medical information

Diagnosis: .....
.....
.....
.....

N.B. Any ATUE may be reviewed at any time, by the ADO and/or WADA

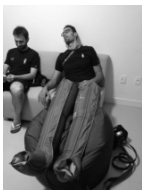
STRICTLY CONFIDENTIAL

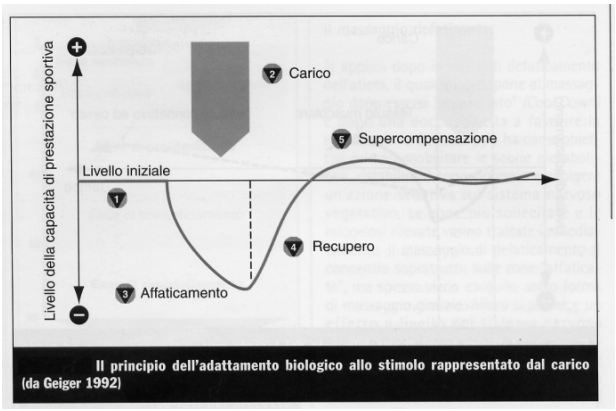
Educazione ed informazione

- Riunione iniziale ad ogni raduno
- Programma Adams/Where abouts
- Informazione specifica e generale
- Controllo e vigilanza
- Conseguenze legali (Legge n.376/2000)

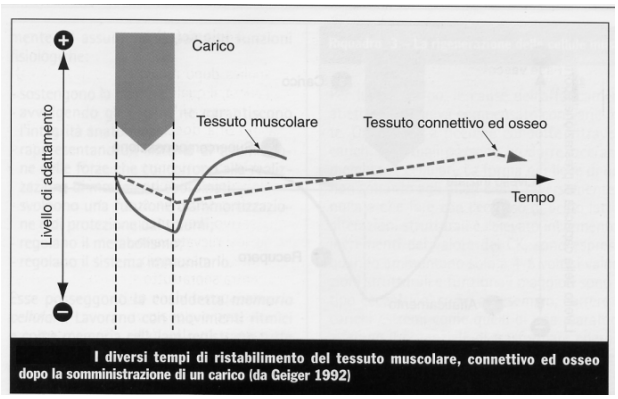
Gestione del recupero e dei carichi di lavoro





Il principio dell'adattamento biologico allo stimolo rappresentato dal carico (da Geiger 1992)



I diversi tempi di ristabilimento del tessuto muscolare, connettivo ed osseo dopo la somministrazione di un carico (da Geiger 1992)

" .....Mi sono preoccupato soprattutto di evitare infortuni, quindi abbiamo indietreggiato ogni volta che vi era il più piccolo accenno di infortunio. Sono stato anche attento a non commettere errori sul piano della sicurezza nel valutare i sovraccarichi.
Ciò mi permette di evidenziare quella che io considero la seconda "chiave" del successo di Jonathan : il recupero.
Il rispetto del recupero ha sempre caratterizzato il suo programma di allenamento : forse questa è una delle ragioni del suo terribile miglioramento del 1995....."

Carl Johnson, allenatore di J.Edwards,
primatista mondiale di salto triplo

"NO PAIN, NO GAIN"

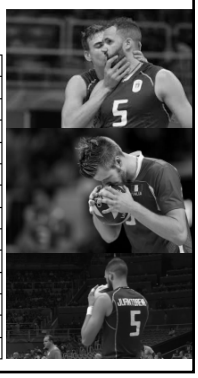
"ANDARE SOPRA IL DOLORE"

"ALZARE L'ASTICELLA"

SETTIMANE TIPO

Lunedì	PESI
	PALLA
Martedì	TECNICA-DIFF
	PALLA
Mercoledì	PESI
	PALLA
Giovedì	TECNICA-DIFF
	PALLA
Venerdì	PESI
	PALLA
Sabato	RIPOSO
	RIPOSO
Domenica	RIPOSO
	RIPOSO

Lunedì	PESI
	PALLA
Martedì	TECNICA-DIFF
	PALLA
Mercoledì	PESI
	PALLA
Giovedì	RIPOSO
	PALLA
Venerdì	ALL PRE GARA
	PARTITA
Sabato	RIPOSO
	PESI+PALLA
Domenica	ALL PRE GARA
	PARTITA

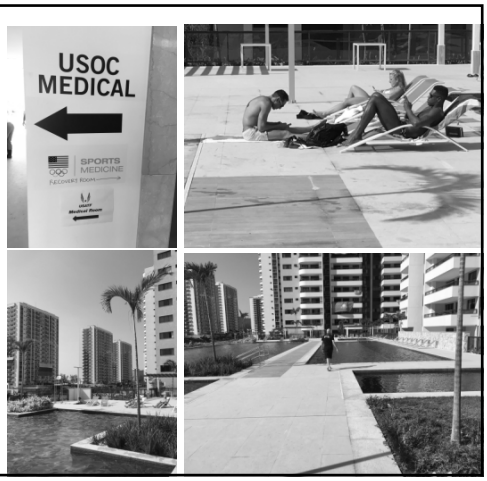


NAZIONALE ITALIANA MASCHILE VOLLEYBALL
STAGIONE 2015

4 CONTINENTI
21 CITTÀ
28 ALBERGHI
110 ORE DI VOLO
60 ORE DI TRENO
30 ORE DI PULLMANN
36 PARTITE
78 GG. ALLENAMENTI
E RADUNI

IL RECUPERO

IL RECUPERO



Gestione del trauma

- Prevenzione
- Gestione
- Riabilitazione

- Conoscenza epidemiologica
- Aggiornamento scientifico costante



Sport e Traumatologia

Gestione integrata e prevenzione

- **Conoscenza dell'injury profile della disciplina**
- **Conoscenza della storia del giocatore e delle problematiche traumatologiche più recenti**
- **Individuazione del principali fattori di rischio generali ed individuali**
- **Organizzazione delle strategie di prevenzione più adeguate in relazione al periodo, alla situazione, all'atleta**
- **Valutazione e controllo dell'efficacia delle misure di prevenzione nei vari periodi**

Scand J Med Sci Sports 1996: 6: 228–232
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Scandinavian Journal of
MEDICINE & SCIENCE IN SPORTS
ISSN 0905-7188

Injuries in elite volleyball

Aagaard H, Jørgensen U. Injuries in elite volleyball.
Scand J Med Sci Sports 1996: 6: 228–232. © Munksgaard, 1996

During the 1993–1994 volleyball season, injuries to players in the two Danish elite divisions were registered by means of a questionnaire survey. Eighty per cent of the players returned the questionnaire. A total of 70 female players reported 79 injuries and 67 male players reported 98 injuries, representing an overall incidence of 3.8 injuries per player per 1000 volleyball hours played. The injury incidence was the same for female and male players. Most injuries occurred in spiking (32%) and in blocking (28%). The injuries were predominantly either acute injuries to fingers (21%) and ankles (18%) or overuse injuries to shoulders (15%) and knees (16%). Shoulder injuries seemed to be a more serious problem in females. During the past 10 years the rate of overuse injuries has increased from 16% to 47% in male elite volleyball, corresponding to a significant increase in the incidence of these injuries from 0.5 to 1.8 injuries per player per 1000 played hours ($P<0.001$). A possible explanation for this could be a 50% increase in training activity during this period.

H. Aagaard[1], U. Jørgensen[2]
[1]Laboratory of Functional Anatomy, Department of Medical Anatomy C, The Panum Institute, [2]Unit of Sport Traumatology, Department of Orthopaedic Surgery, Copenhagen County Hospital, Gentofte, University of Copenhagen, Denmark

Key words: injury; volleyball; epidemiology; elite players; injury incidence

Henrik Aagaard, Department of Medical Anatomy C, University of Copenhagen, The Panum Institute, Blegdamsvej 3, DK-2200 Copenhagen N, Denmark

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Volleyball injuries.

Eerkes K 1.

Author information

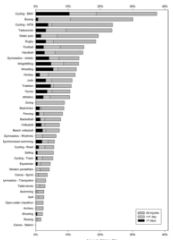
Abstract

There has been a significant increase in the numbers of people playing indoor and beach volleyball since the early 1980s and, consequently, an increase in injuries. Most injuries are related to repetitive jumping and hitting the ball overhead. The ankle is the most commonly injured joint, but the knee, shoulder, low back, and fingers also are vulnerable. The shoulder in particular is subject to extreme torque when hitting and jump serving the ball. Some injuries have a predilection for those playing on sand versus those playing in an indoor court. The clinician caring for volleyball playersshould be aware of the types of injuries these players sustain and how to help them return to play promptly and appropriately. This article reviews the specific injuries that are most common as a result of participating in the sport of volleyball.

Original article

Sports injury and illness incidence in the Rio de Janeiro 2016 Olympic Summer Games: A prospective study of 11274 athletes from 207 countries

Torbjørn Soligard,[1,2] Kathrin Steffen,[3] Debbie Palmer,[4,5] Juan Manuel Alonso,[6] Roald Bahr,[3] Alexandre Dias Lopes,[7] Jiri Dvorak,[8] Marie-Elaine Grant,[9] ..



Box 1 Information on the 221 severe injuries (estimated absence >7 days), with the sports with the highest numbers in brackets (unadjusted for athlete exposures in each sport).

- 65 muscle strains (33 in athletics, six in football, six in weightlifting)
- 57 ligament sprains/ruptures (eight in wrestling, six in athletics, six in judo, five in artistic gymnastics, five in weightlifting)
- 24 fractures (three in hockey, three in rugby, two in boxing, two in artistic gymnastics, two in mountain bike cycling, two in road cycling, two in water polo)
- 15 dislocations or subluxations (four in wrestling, three in judo, two in boxing)
- 12 lesions of meniscus or cartilage
- nine concussions (out of 12 in total: seven in boxing, two in rugby, one each in BMX cycling, mountain bike cycling, and handball)
- seven stress fractures (three in athletics, two in tennis, one each in boxing and triathlon)
- six tendon ruptures
- five contusions, haematomas or bruises
- five lacerations, abrasions or other skin lesions (three in boxing, two in triathlon)
- four nerve or spinal cord injuries
- four tendinopathies (three in athletics)
- two arthritis, synovitis or bursitis injuries
- two impingements
- two 'other bone injuries

Injury type was missing for two of the severe injuries.

Figure 1 Proportions of athletes (%) in each sport with injury, injury with estimated time loss ≥1 day, and injury with estimated time loss >7 days.

There was no statistical difference in the incidence of inju...

What are the findings?

- Overall, 8% and 5% of the athletes incurred at least one injury or illness, respectively, during the Rio 2016 Olympic Games.
- BMX cycling (38%), boxing (30%), mountain bike cycling (24%), taekwondo (24%), water polo (19%) and rugby (19%) were the sports with the highest incidence of injury.
- Diving (12%), open-water marathon (12%), sailing (12%), canoe slalom (11%), equestrian (11%) and synchronised swimming (10%) were the sports with the highest illness incidence.
- The rate of infectious diseases in Rio was low and consistent with previous Olympic Games.

FIVB — **Injury Report Form** — **M-10**

Event: 2010 FIVB Men's Volleyball World Championship Place: Italy Dates: Sep 25th - Oct 10th, 2010

Team: ITA Match: ITA - FRA Match #: 63 Date: 06.10.2010

Team Doctor: Mobile: E-mail:

NOTE: An injury is defined as any physical complaint sustained by a player during the match or during training prior to the match.

Any injury? ☐NO ☐YES If "YES", please complete information below

Player #	Function	Time of injury		Injury location		Type of injury		Cause of injury		Severity	
	Code	Training (date)	Match (set #)	Description	Code	Description	Code	Description	Code	Returned to game	Absence (Code)
										☐ Yes ☐ No	
										☐ Yes ☐ No	
										☐ Yes ☐ No	
										☐ Yes ☐ No	
										☐ Yes ☐ No	
										☐ Yes ☐ No	

Definitions & Codes

Player function:
S: Setter
D: Diagonal
O: Outside hitter
C: Center player
L: Libero

Injury location - injured body part:

Head and trunk
1. face (incl. eye, ear, nose)
2. head
3. neck/cervical spine
4. thoracic spine/upper back
5. sternum/ribs
6. lumbar spine/lower back
7. abdomen
8. pelvis/sacrum/buttock

Upper extremity
11. shoulder/clavicle
12. upper arm
13. elbow
14. forearm
15. wrist
16. hand
17. finger
18. thumb

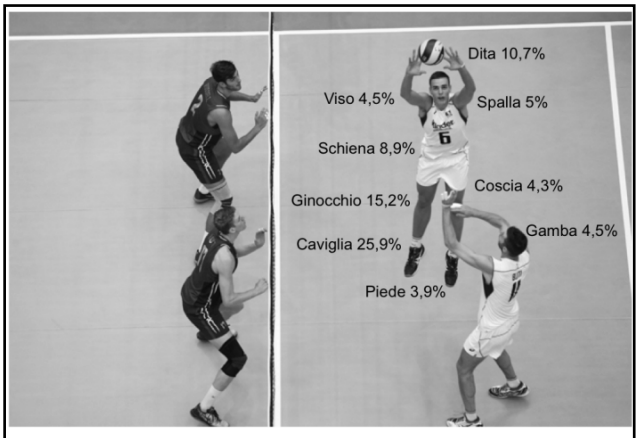
Lower extremity
21. hip
22. groin
23. thigh
24. knee
25. lower leg
26. Achilles tendon
28. ankle
28. foot/toe

Type of injury - diagnosis:
1. concussion (regardless of loss of consciousness)
2. fracture (traumatic)
3. stress fracture (overuse)
4. other bone injuries
5. dislocation, subluxation
6. tendon rupture
7. ligamentous rupture with instability
8. ligamentous injury without instability
9. sprain (injury of joint or ligaments)
10. lesion of meniscus or cartilage
11. strain/muscle rupture/ tear
12. contusion/ haematoma/bruise
13. tendinosis/tendinopathy
14. bursitis
15. laceration/abrasion/skin lesion
16. dental injury/broken tooth
17. nerve injury/spinal cord injury
18. muscle cramps or spasm
19. others

Cause of injury - diagnosis:
1. overuse (gradual onset)
2. overuse (sudden onset)
3. non-contact trauma
4. recurrence of previous trauma
11. contact with another player
12. contact: moving object (ball)
13. contact: stagnant object (eg. net, post)
14. violation of rules (foul play)
21. field of play conditions
22. hall environmental conditions
23. equipment failure
24. others

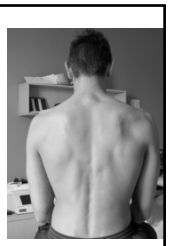
Severity - expected duration of absence from training or competition (in days):
0: 0 days
1: 1 day
2: 2 days
7: 1 week
14: 2 weeks
21: 3 weeks
28: 4 weeks
>30: more than 4 weeks
>180: 6 months or more
CE: career ending

Signature Team Doctor:



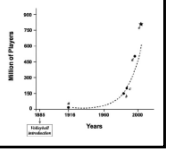
Parti del corpo infortunate N=440 R. Bahr, Rio 2016 Med.S.

Traumatologia della pallavolo



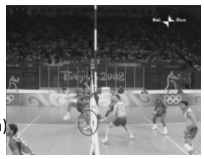
Infortuni più frequenti:

- Distorsioni caviglia (Bahr, 1994 – Schafle 1993)
- Traumi dita mani
- Tendinopatia rotulea (Bisseling, 2007)
- Tendiniti e traumatismi cronici spalla (Briner, 1999 – Reeser, 2010 – Vang 2001)
- Neuropatia sovrascapolare (Dramis, 2005 – Witvrouw, 2000)
- Lombalgia
- Traumi muscolari (Watkins, 1992)



Volleyball player Injury profile

Traumi acuti: distorsione di caviglia, dita mani



Traumi cronici: sovraccarico funzionale spalla, schiena, ginocchio (jumper's knee [spt.sovrarotuleo], condropatia)

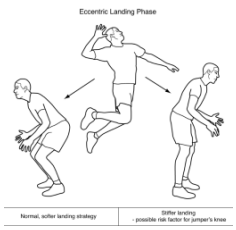
Traumatologia della pallavolo

- Infortuni correlati alle azioni di muro e di schiacciata
- Maggiore incidenza di tendinopatia rotulea in giocatori con maggiore forza degli arti inferiori e maggiore capacità di salto; influenza della biomeccanica del gesto

SPORT-SPECIFIC ILLNESS AND INJURY

Jumper's Knee in Volleyball Athletes: Advancements in Diagnosis and Treatment

Garrett S. Hyman



Contents lists available at ScienceDirect

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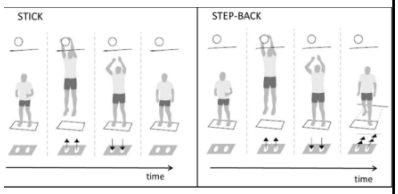
Original research

Lower extremity mechanics during landing after a volleyball block as a risk factor for anterior cruciate ligament injury

David Zahradnik [a,*], Daniel Jandacka [a], Jaroslav Uchytil [a], Roman Farana [a], Joseph Hamill [b]

[a] Human Motion Diagnostic Center, University of Ostrava, Varenska 40A, 70200 Ostrava, Czech Republic
[b] Biomechanics Laboratory, University of Massachusetts, Amherst, MA, USA



Scand J Med Sci Sports 2013: 23: 607–613
doi: 10.1111/j.1600-0838.2011.01430.x

SCANDINAVIAN JOURNAL OF MEDICINE & SCIENCE IN SPORTS

Training volume and body composition as risk factors for developing jumper's knee among young elite volleyball players

H. Visnes, R. Bahr

Oslo Sports Trauma Research Center, Oslo, Norway
Corresponding author: Håvard Visnes, *MD, PT, Oslo Sports Trauma Research Center, PO Box 4014 – Ullevål Stadion, 0806 Oslo, Norway. Tel: +47 23 26 23 67, Fax: +47 23 26 23 07, E-mail: haavard.visnes@helse-bergen.no*

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week. We did not detect any significant differences between the groups in body composition at the time of inclusion or in the change of body composition during the study period. Conclusion, male gender, a high volume of volleyball training and match exposure were risk factors for developing jumper's knee.

a	RISK FACTORS	
Intrinsic		
SHOULDER		BACK/TRUNK
Anatomy & biomechanics		
• Mobility impairment • Muscle imbalance/instability • Muscle weakness SICK scapula & Scapular asymmetry		• Spinal dimension • Posture • Trunk weight • Centre of mass position
History of shoulder pain		
Gender Age Hours of game/training played Technique utilized Level, category and role of the player in the game		
Extrinsic		
Type of shoes Environment Competitive situation Hardness of the playing surface		

b	SOLUTIONS	
Preventive		
SHOULDER		BACK/TRUNK
• Optimization of the spike technique • Eccentric resistance training • Core strengthening/stability training • Preventing rehabilitation		• Developing trunk muscle motor control, kinesthetic awareness, endurance and coordination • Developing adequate strength power • Exercises to appropriate trunk stability and neutral spine alignment
Diagnostic screening Physical Examinations Stretching/correct warm up before the game		
Post injury		
Rest Period Anti-inflammatory drugs Surgery		Rehabilitation Programs: • Following an appropriate kinetic chain (from proximal to distal) • Muscle training (strength and control) • Plyometric Exercises

Sports Med
DOI 10.1007/s40279-014-0203-9

INJURY CLINIC

Injury Risk Management Plan for Volleyball Athletes

Lachlan P. James · Vincent G. Kelly · Emma M. Beckman

Injury Risk Management Plan for Volleyball Athletes

Table 1 Modifiable and non-modifiable risk factors for the most common volleyball injuries

Risk factor	Modifiable	Non-modifiable
Ankle sprain	Striking technique with excessive horizontal displacement [8] Faulty two-person blocking strategy [14] Lower weight-bearing ankle dorsiflexion ROM (men) [26]	Previous ankle injury [10] Increased tibial varum ROM [23] Increased calcaneal eversion ROM [23] Less accurate passive joint position sense in eversion [25] Higher range of motion through extension at the first metatarsophalangeal joint (women) [25]
Patella tendinopathy	Large increases in training load [32] Lower flexibility in hamstrings [36] Lower flexibility in quadriceps [36] Less knee flexion upon vertical landings [38] Faulty horizontal landing strategy [39] Reduced dorsiflexion [15] Increased waist to hip ratio [15, 35] Greater vertical jump performance [39]	Playing history duration (exposure to repetitive low body ballistic efforts) and previous patella tendinopathy [31]
Shoulder overuse injuries	Serving or spiking style [40] Weakness in external shoulder rotation strength [5] Limited internal shoulder rotation [5] SICK [2] Weak core stability [42] Large increases in training load [2] Position [5]	Previous shoulder injury [2] Age [40] Playing history [5]
ACL injury	Faulty landing and take-off technique (knee valgus collapse combined with excessive internal or external knee rotations, and insufficient knee flexion) [44] Weakness in hamstring to quadriceps ratio [45, 80, 81] Fatigue [47]	Family history [46] Previous ACL injury [19]
Overall injury occurrence	Preseason practice Regular season games [14]	Playing in either middle, left- or right-side hitting position [14]

ACL anterior cruciate ligament, *ROM* range of motion, *SICK* scapula malposition, inferior medial border prominence, coracoid pain and

Table 2 Risk factors for volleyball athletes

Injury	High risk	Medium risk	Low risk
Ankle injury	Right, middle or left hitter with previous ankle injury employing unsafe blocking or striking strategies	Hitters with no history of ankle injury with unsafe blocking and striking tactics	Setter or libero with no history of ankle injury Hitters with safe blocking and striking strategies without previous ankle injuries
	With or without: poor postural control, poor JPS, ROM indicators	A setter or libero with a previous ankle injury.	
Patella tendinopathy	Middle, left- and right-side hitters with history of *PT* who display hazardous landing techniques	All remaining hitters Setters, libero with history of PT	Setter, libero without history of *PT*
Shoulder overuse injury	Hitters with a previous shoulder overuse injury who possess mobility impairment, weakness through external rotation and SICK scapula, regardless of serving style	All remaining hitters with a history of shoulder overuse injury All remaining hitters with an extensive playing history	All remaining players
	Hitters with extensive playing history, who demonstrate mobility impairment, weakness through external rotation and SICK, regardless of serving style	Hitters without an extensive training history who express at least two of the following: mobility impairment, weak external to internal rotation ratio, SICK scapula, reduced core stability Setter or libero with a previous history of shoulder overuse injuries	
ACL injury	Any hitter demonstrating valgus collapse about an internally or externally rotated and excessively extended knee	A setter or libero demonstrating valgus collapse about an internally or externally rotated and excessively extended knee A hitter with weak hamstring to quadriceps ratio or poorer physical fitness, and healthy landing mechanics	Hitters who are not predisposed and execute healthy jumping and landing strategies Liberos and setters with optimal jumping, landing technique, with or without predisposition

PT patella tendinopathy, *JPS* joint position sense, *ACL* anterior cruciate ligament, *ROM* range of motion, *SICK* scapula malposition, inferior medial bounder prominence, coracoid pain and malposition, and scapular dyskinesis

Table 3 Injury prevention strategies for all players

Type of strategy	Injury	Activities
Example neuromuscular tasks	ACL injury Ankle sprain	Single-leg squat Shuffles or Cariocas—progress to change of direction reaction (mirror partner or coaches cue) Lateral or 45° bound and balance, landing on opposite leg Single-leg hops over line, or ladder drills Jump to 45° turn—progress to reaction ('jump left', 'jump right'), further progress to dual task (catch and pass, set, dig) Submaximal single-leg landing drills, depth jumps and variations Progressions to pivoting and cutting activities after capacity is developed
Motor learning and coaching strategies	ACL injury Patella tendinopathy	Precise movement mechanics to ensure lower-limb joint congruency and encourage active, soft landings whilst maintaining the centre of mass over the base of support Close qualitative analysis to identify these movement dysfunctions Combined visual and verbal feedback Use of implicit learning strategies Cognitive teaching describing both the injury prevention and performance benefits of prescribed activities
Load management	Patella tendinopathy	Cautious introduction of tendon-loading activities during the preseason or following a period of inactivity Structure high, medium and low tendon-loading days Tracking of 'ground contacts' during plyometric and ballistic activities in strength and conditioning sessions Application of valid periodization strategies to prevent fatigue-related injuries, particularly in preseason and regular season
Rotator cuff strengthening	Shoulder overuse injury	External rotation and external rotation with scapular plane abduction exercises in functional, athletic positions (Fig. 1) Such exercises can also be conducted with eccentric emphasis. Here, the athlete externally rotates against light elastic tubing, steps away and along the line of action to create more tension while the free hand supports, then completes, the eccentric action These exercises can be performed between sets during resistance training

ACL anterior cruciate ligament

SCANDINAVIAN JOURNAL OF MEDICINE & SCIENCE IN SPORTS

Previously identified patellar tendinopathy risk factors differ between elite and sub-elite volleyball players

I. Janssen[1,2], J. R. Steele[1], B. J. Munro[1], N. A. T. Brown[2]

[1]Biomechanics Research Laboratory, Faculty of Science, Medicine & Health, University of Wollongong, Wollongong, New South Wales, Australia, [2]AIS Movement Science, Australian Institute of Sport, Canberra, Australian Capital Territory, Australia
Corresponding author: Ina Janssen, Biomechanics Research Laboratory, Faculty of Science, Medicine and Health, University of Wollongong, Northfields Avenue, Wollongong, NSW 2522, Australia. Tel: +61 2 4221 3498, Fax: +61 2 4221 5945, E-mail: ij015@uowmail.edu.au

Accepted for publication 5 February 2014

Patellar tendinopathy is the most common knee injury incurred in volleyball, with its prevalence in elite athletes more than three times that of their sub-elite counterparts. The purpose of this study was to determine whether patellar tendinopathy risk factors differed between elite and sub-elite male volleyball players. Nine elite and nine sub-elite male volleyball players performed a lateral stop–jump block movement. Maximum vertical jump, training history, muscle extensibility and strength, three-dimensional landing kinematics (250 Hz), along with lower limb neuromuscular activation patterns (1500 Hz), and patellar tendon loading were collected during each trial. Multivariate analyses of variance ($P < 0.05$) assessed for between-group differences in risk factors or patellar tendon loading. Significant interaction effects were further evaluated using post-hoc univariate analysis of variance tests. Landing kinematics, neuromuscular activation patterns, patellar tendon loading, and most of the previously identified risk factors did not differ between the elite and sub-elite players. However, elite players participated in a higher training volume and had less quadriceps extensibility than sub-elite players. Therefore, high training volume is likely the primary contributor to the injury discrepancy between elite and sub-elite volleyball players. Interventions designed to reduce landing frequency and improve quadriceps extensibility are recommended to reduce patellar tendinopathy prevalence in volleyball players.

Journal of Strength and Conditioning Research, 2007, 21(2), 466–469
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Effect of Six Weeks of Dura Disc and Mini-Trampoline Balance Training on Postural Sway in Athletes With Functional Ankle Instability

Dawson J. Kidgell,[1] Deanna M. Horvath,[1] Brendan M. Jackson,[1] and Philip J. Seymour[2]

[1]School of Exercise and Nutrition Sciences, Deakin University, Australia; [2]Centre for Ageing, Rehabilitation, Exercise and Sport, Victoria University, Australia.

ORIGINAL CONTRIBUTION Open Access

The prevention of musculoskeletal injuries in volleyball: the systematic development of an intervention and its feasibility

Vincent Gouttebarge[1,2,3,4*], Marije van Sluis[5], Evert Verhagen[3,4,6,7] and Johannes Zwerver[5]

Table 5 Tendon loading schedule for volleyball athletes

Monday	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunda
M	L	H	L	M	H	L

L low tendon load, *M* medium tendon load, *H* high tendon load

Table 4 Additional injury prevention strategies for volleyball athletes according to specific risk factor profiles

Moderate- to high-risk of ankle injury	Moderate- to high-risk for patella tendinopathy	Moderate- to high-risk for shoulder overuse injury	Moderate- to high-risk of ACL injury
Taping ankle eversion pre-activation Single-leg static balance. Progress from floor to an unstable apparatus Manual resistance can be applied in all these conditions Technical training to encourage a more vertical trajectory when spiking and blocking Taping or bracing of the previously injured ankle	Tracking of ground contacts during practice and games if feasible Limiting the number of ground contacts during practice and strength and conditioning sessions, particularly following games with high tendon loads Quick drop squat and hanging patterns to emphasize eccentric activity	Tracking and frequency management of aggressive overhead actions Stretching activities to improve internal ROM Technique training for those athlete with non-traditional serving and spiking styles Increased focus on structural resistance training exercises	Deceleration tasks such as depth drops and drop jumps May require closer monitoring and more feedback throughout warm-ups, practices and games Additional hamstring strengthening exercises during resistance training sessions Higher volume of plyometric activities (for those at low risk of patella tendinopathy)

ROM range of motion, *ACL* anterior cruciate ligament

Fig. 1 Quick drop squat with external shoulder rotation

Preventing Injury: Young swimmers are not "little adults"

Written by Dr. David F. Gerrard*

There is an adage in sports medicine that 'the child is not simply a little adult'. And nowhere is this comment more relevant than in aquatic sport, in particular swimming, where training usually begins at an age before bones, muscles and joints have matured. If the progress of a young swimmer is too rapid, the training load too intense or poorly monitored, the risk of injury increases.

The sites in the growing skeleton where injury is more likely to occur are regions where tendons attach to "soft," immature bone, and in growth plates located at the ends of each long bone. Coaches play an integral part in recognising the early indicators of injury and may intervene early by reducing the training load, altering stroke mechanics, or modifying weight training and dry land exercise programs.Overuse is the most common injury mechanism and the young swimmer is particularly prone to shoulder, low back and knee problems. Sports doctors recognise conditions such as "swimmer's shoulder," "butterfly swimmer's back", and "breaststroker's knee". These apply equally to water polo players,

KEY POINTS

- Musculoskeletal overuse is a risk for the young aquatic athlete.
- Potential sites of stress in swimmers include shoulders, knees or low back.
- Training load, poor stroke mechanics and disregard for early signs of overuse contribute to delayed recovery.
- Injuries to young athletes demand thorough medical examination and full investigation.
- Rehabilitation may necessitate rest, however modified activity is often an option.

Conclusions

Overuse injuries that limit athletes' sports participation are relatively common among young basketball and floorball players. Players participating in adult elite level games, and players with previous injury and family history of MSD, are at increased risk of overuse injuries. Further research is needed to decrease the risk of overuse injuries in youth team sports.

Epidemiology of Overuse Injuries in Youth Team Sports: A 3-yea Prospective Study

Authors
Mari Leppänen[1], Kati Pasanen[1], Pekka Kannus[2], Tommi Vasankari[3], Urho M. Kujala[4], Ari Heinonen[4], Jari Parkkari[1]

Modificazioni del regolamento

- Rally point system, 1999
- Introduzione del "libero",1998
- Battuta sul net, 2000
- Palla meno gonfia, 2000
- Time-out
- Video-check


- CONSEGUENZE METODOLOGICHE
  - Allenamenti meno lunghi e più intensi
  - Preparazione fisica modificata e diversificata

- CONSEGUENZE TRAUMATOLOGICHE
  - Aumento traumatismi acuti (caviglia – traumi muscolari: polpaccio/addominali)
  - Diverso "injury profile" in relazione ai ruoli
  - Aumento "shoulder pain" per l' azione di battuta

Integrazione degli interventi

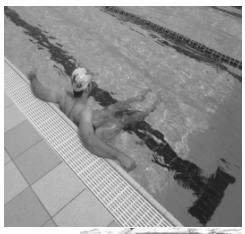
- Trattamenti manuali
- Fisioterapia strumentale
- Terapia medica / farmacologica
- Attività in palestra
- Attività in acqua
- Altro…

NO	SI
• Conflittualità	- Coordinazione
• Interferenza	- Sinergia
• Sovraccarico	- Corretta modulazione carico
	- Integrazione
	- Sequenzialità

Integrazione e coordinazione degli interventi e delle attività




Attività di prevenzione In acqua



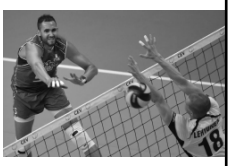

Lavori Individuali In acqua






Esercitazioni di gruppo per la prevenzione



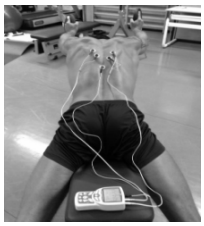




Lavori di prevenzione Individuale e di gruppo



Lavori individuali di prevenzione



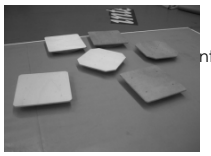
Prevenzione arto superiore





Prevenzione arto inferiore






Riscaldamento individualizzato

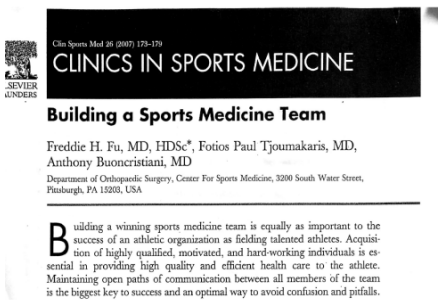
INVESTIGATION OF MANAGEMENT MODELS IN ELITE ATHLETE INJURIES

Shen-Kai Chen, Yun-Min Cheng, Yen-Chung Lin,1 Yu-Jue Hong,1 Peng-Ju Huang, and Pei-Hsi Chou

- Diverse componenti portano a scegliere un modello di gestione degli infortuni
- **La scelta, spesso pilotata dagli atleti, dipende dal livello di qualificazione, dall'età, dal genere, dall'esperienza**

- Ci può essere una utile integrazione tra approcci diversi

Lo staff sanitario



Clin Sports Med 26 (2007) 173–179

CLINICS IN SPORTS MEDICINE

Building a Sports Medicine Team

Freddie H. Fu, MD, HDSc*, Fotios Paul Tjoumakaris, MD, Anthony Buoncristiani, MD

Department of Orthopaedic Surgery, Center For Sports Medicine, 3200 South Water Street, Pittsburgh, PA 15203, USA

Building a winning sports medicine team is equally as important to the success of an athletic organization as fielding talented athletes. Acquisition of highly qualified, motivated, and hard-working individuals is essential in providing high quality and efficient health care to the athlete. Maintaining open paths of communication between all members of the team is the biggest key to success and an optimal way to avoid confusion and pitfalls.

Fu e al. –Building a sports medicine team (Clin Sports Med 26, 2007)

– Obiettivi:

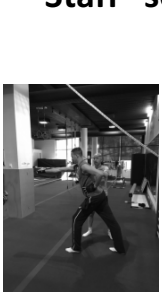
- Coordinare lo screening pre-partecipazione
- Gestire gli infortuni sul campo
- Organizzare la gestione medica di traumi e malattie
- Coordinare i programmi riabilitativi ed il ritorno allo sport
- Assicurare un ritorno all'attività in sicurezza
- Integrare le competenze coinvolte (specialistiche, mediche, tecniche)
- Organizzare un corretto approccio ad alimentazione, integrazione, stili di vita
- Controllare le documentazioni cliniche ed aggiornare

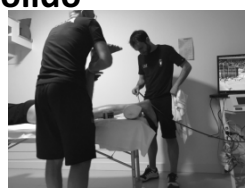
Fu e al. –Building a sports medicine team (Clin Sports Med 26, 2007)

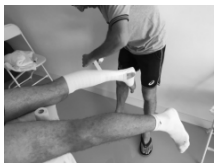
- Individuare il riferimento principale
- Coordinare il percorso riabilitativo
- Evitare errori, confusioni, conflitti
- Costruire un "team" vincente" (coordinazione e comunicazione!)

Staff "solido"

- Coordinato
- Sinergico
- Dialettico
- Flessibile
- Autorevole
- Responsabile
- Competente
- Aggiornato
- Innovativo







Coris E. e al. – Sports Med Arthrosc 2009

Imaging in sports medicine: an overview

"Dato il continuo aumento dei traumi sportivi, e l'utilità di una tecnologia di diagnosi e trattamento in continua evoluzione, il medico sportivo deve necessariamente aggiornarsi sulle potenzialità delle nuove tecnologie.....particolari avanzamenti sono stati fatti in campo radiologico, che offre una miriadi di opzioni al medico….che deve essere informato sulla validità, sulle indicazioni, sulle controindicazioni, sulla sensibilità, sulla specificità e anche sui costi nel grande spettro delle opzioni diagnostiche"

Borg-Stein J. – PM R 2009

New concepts in the assessment and treatment of regional musculoskeletal pain and sport injury

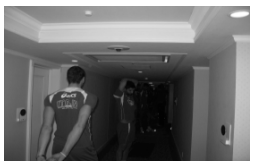
L'esame delle nuove conoscenze nel trattamento dei disordini muscoloscheletrici (comprensione dei meccanismi patogenetici, nuove modalità nell'imaging, aggiornamenti sui modelli di trattamento, etc.) presuppongono un nuovo approccio nella gestione dei traumi muscolotendinei non chirurgici

Borg-Stein, Zaremski, Hanford – New concepts in the assesment and treatment of regional musculoskeletal pain and sports injury – PM&R, 1, 8, 2009

- Rassegna sulle nuove opportunità diagnostiche e terapeutiche dei traumi tendinei e muscolari nello sport:

- Necessità di un nuovo approccio basato sulle nuove conoscenze, adeguato anche alle diverse patologie, discipline, età

Organizzazione delle attività di terapia e di prevenzione in differenti condizioni *(flessibilità!)*





Programma riabilitativo in emergenza


Journal of Athletic Training 2008;43(5):523–529
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www.nata.org/jat

systematic review

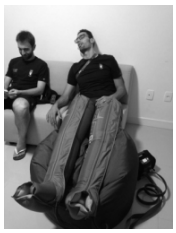
Ankle Ligament Healing After an Acute Ankle Sprain: An Evidence-Based Approach

Tricia J. Hubbard, PhD, ATC; Charlie A. Hicks-Little, MS, ATC

The University of North Carolina at Charlotte, Charlotte, NC

Key Points

- The amount of time needed for ligament healing after ankle sprain is unknown.
- Significant improvements in mechanical stability did not occur until at least 6 weeks to 3 months after injury, but a moderate percentage of participants still had objective mechanical laxity and subjective ankle instability.
- Objective assessment of mechanical laxity immediately after an ankle sprain and for at least 1 year after injury is needed so clinicians can know how long to protect and immobilize an ankle after sprain, develop rehabilitation protocols to help stabilize the ankle, and make return-to-play decisions based on stability of the ankle ligaments, preventing further injury and damage.





Return to play

Approccio integrato

- Metodologie di lavoro
- Figure professionali
- Trattamenti terapeutici
- Attività ed interventi
- Esperienze ed evidenze

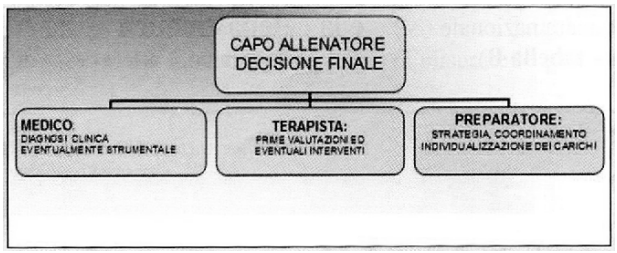
Lo staff – Come costruirlo

- Da chi è composto
- Come interagisce
- Come si consolida
- Come si modifica
- Come lavora
- Il budget e il contesto
- I riferimenti

Gestione integrata

- **Tecnico/i**
- **Team-manager**
- **Preparatore fisico**
- **Medico**
- **Fisioterapista/i**
- Specialisti di riferimento
- Osteopata
- Statistici / Tattici
- Psicologi
- Fisiologi / Biomeccanici
- …….

Benvenuto, 2010



La comunicazione

Review

Teams, tribes and patient safety: overcoming barriers to effective teamwork in healthcare

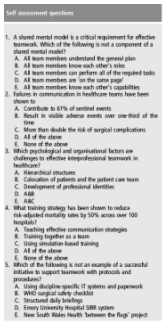
Jennifer Weller, Matt Boyd, David Cumin

Centre for Medical and Health Sciences Education, Faculty of Medical and Health Sciences, Grafton Campus, University of Auckland, Auckland, New Zealand

ABSTRACT
Modern healthcare is delivered by multidisciplinary, distributed healthcare teams who rely on effective teamwork and communication to ensure effective and safe patient care. However, we know that there is an members of the team and categorise the challenges to interprofessional teamwork and communication in healthcare into three domains: educational, psychological and organisational. Finally, we will suggest a range of solutions to these challenges,

Lavorare come un team multidisciplinare: le opportunità di crescita

- Aspetto educazionale/Formativo (diversi linguaggi, diversi programmi di intervento, diversa preparazione, difficile interazione tra le professionalità: "allenamento"!!)
- Psicologico (comunicazione e interazione fra diversi livelli e diverse figure)
- Organizzativo/Gestionale (situazioni geografiche, logistiche – diversi teams coinvolti – utilizzo delle comunicazioni sulla rete, etc.)



Self assessment questions

1. A shared mental model is a critical requirement for effective teamwork. Which of the following is not a component of a shared mental model?
   A. All team members understand the general plan
   B. All team members know each other's roles
   C. All team members can perform all of the required tasks
   D. All team members are 'on the same page'
   E. All team members know each other's capabilities
2. Failures in communication in healthcare teams have been shown to
   A. Contribute to 61% of sentinel events
   B. Result in visible adverse events over one-third of the time
   C. More than double the risk of surgical complications
   D. All of the above
   E. None of the above
3. Which psychological and organisational factors are challenges to effective interprofessional teamwork in healthcare?
   A. Hierarchical structures
   B. Colocation of patients and the patient care team
   C. Development of professional identities
   D. A&B
   E. A&C
4. What training strategy has been shown to reduce risk-adjusted mortality rates by 50% across over 100 hospitals?
   A. Teaching effective communication strategies
   B. Training together as a team
   C. Using simulation-based training
   D. All of the above
   E. None of the above
5. Which of the following is not an example of a successful initiative to support teamwork with protocols and procedures?
   A. Using discipline-specific IT systems and paperwork
   B. WHO surgical safety checklist
   C. Structured daily briefings
   D. Emory University Hospital SBR system
   E. New South Wales Health 'between the flags' project

1. Apprendere strategie di comunicazione efficace

2. Allenare insieme I teams che lavorano insieme

3. Allenare il team utilizzando la simulazione

4. Favorire la coesione di team multidisciplinari incentivando il senso di appartenenza e il raggiungimento degli obiettivi

5. Creare teams democratici con una comunicazione aperta e la valorizzazione delle diverse competenze e figure

6. Sostenere il team work con adeguati protocolli e procedure chiare e condivise

7. Sviluppare una cultura organizzativa che favorisca la comunicazione e la crescita dei teams sanitari

Table 2 Strategies to improve communication

Tool	Brief description
Step-back (call-out)[32 48]	Stepping back from and taking an overview of the situation, the health professional who is leading the team calls the attention of the team and provides an update of the situation, the plan and invites suggestions.
Closed-loop communication[40 53 54]	This three-step strategy involves; the sender directs the instruction to the intended receiver, using their name where possible; the receiver confirms what was communicated as a check on hearing and understanding the instruction, seeking clarification if required; the sender verifying that the message has been received and correctly interpreted.
Structured information transmission (SBAR/ISBAR)[52 55 56]	This is a widely used acronym to help structure verbal at handover or patient referral. The original version (SBAR) has been expanded in some reports to ISBAR, starting with Identify yourself: Identify →Situation→Background→Assessment→Recommendation.
Structured handover[23 57]	Simple templates for summarising important patient information at handover
Graded assertion (PACE)[48]	Escalating concern (Probe, Alert, Challenge, Emergency)

psychological and organisational strategies. Recent evidence suggests that improvement in teamwork in healthcare can lead to significant gains in patient safety, measured against efficiency of care, complication rate and mortality. Interventions to improve teamwork in healthcare may be the next major advance in patient outcomes.

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CLINICS IN SPORTS MEDICINE
ELSEVIER SAUNDERS

Communication: The Key to the Game

Jeff G. Konin, PhD, ATC, PT
Department of Orthopaedic Surgery, College of Medicine, University of South Florida, 12901 Bruce B. Downs Boulevard, MDC 77, Tampa, FL 33612-4766, USA

Communication. Communication. Communication. The author could probably stop writing this article at this point. If I did, however, you might just think my words are archaic and merely come across as yet just another cliché in a world that is overpopulated and infiltrated with acronyms and quotes to describe each and every daily encounter. So perhaps an explanation is owed to clearly justify why the word "communication" takes on a whole new level of meaning when it describes one's role as a team physician.

Konin J. – Communication: the key of the game – (Clin sports med, 26, 2007)

- Catena di comando
- Metodi vincenti
- Forme di comunicazione pratiche
- Errori comuni di comunicazione: assenza di comunicazione, non comunicare abbastanza, comunicazioni poco comprensibili o "interpretabili" (v. dirette / mail), non comprensione e adeguamento situazioni specifiche, non riconoscere l'importanza della comunicazione, non definire nè curare il rapporto con gli atleti, non conoscere aspetti medici importanti, non frenare il "gossip"

IMPORTANCE

Perhaps the biggest mistake one can make as a team physician as it relates to communication is to underestimate the importance of any single piece of information. The team physician must recognize at all times that he or she is a part of a team of health care providers. This means that new information regarding the injury or illness of a player must be shared with the athletic trainers and other key individuals in a timely manner. Likewise, the team physician should expect the same level of communication in return from athletic trainers. One of the most uncomfortable feelings that a medical provider associated with a team can have is to be asked a question by a coach or key person and not know the answer. It is not uncommon for coaches and others to ask the same question to

E-mail address: jeffkonin@hotmail.com

0278-5919/07/$ – see front matter
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multiple health care providers associated with a team, just to see if they can obtain the same response. In fact, if the question at hand pertains to a diagnosis, prognosis, or return-to-play decision, this is a common tactic that will be used by coaches in an attempt to seek out the one person on the medical team who may provide the most favorable response from the coach's perception. Be careful not to underestimate the value of each little piece of information related to a player's health, and be sure to communicate this to other appropriate medical team members. Team physicians should at all times carry telephone numbers, e-mail addresses, pagers, and any other form of communication used by

team members. Team physicians should at all times carry telephone numbers, e-mail addresses, pagers, and any other form of communication used by medical staff members to assure timely communication.

It is absolutely critical that the team physician, and any other medical staff member for that matter, does not "grandstand" and feel compelled to be the one to deliver news that other pertinent medical staff members do not have. Feeling the need to set one's own a priori information dissemination agenda will only lead to a distrustful and uncomfortable environment. Furthermore, this has the dangerous potential of providing coaches and others with credible information that some involved medical staff members do not have. There is no place for such behavior when a team of medical providers are expected to work as one.

To avoid confusion, misinformation, and communicating through inappropriate channels, it is imperative to first identify a single person who will be the voice of the medical staff. All information regarding the health status of a player should be conveyed through this one individual. Doing this clearly

Conclusioni

La gestione dell'atleta infortunato e la programmazione di adeguate strategie di prevenzione e riabilitazione necessitano di operatori non solo competenti e capaci ma anche di staff coordinati, solidi e sinergici, a tutti i livelli e in qualsiasi contesto. Questo può costituire quel "valore aggiunto" per il raggiungimento dei massimi obiettivi

Conclusioni

- **Integrazione**
- degli interventi (coordinati, sinergici, sequenziali, flessibili)
- dei trattamenti delle professionalità e delle capacità
- delle conoscenze e delle competenze

Continuo confronto ed interazione degli operatori

Conclusioni

* Conoscenza completa ed aggiornata dell'epidemiologia specifica
* Studio adeguato del gesto tecnico e del modello prestativo (ruolo, caratteristiche antropometriche e fisiche) e delle caratteristiche degli atleti
* Capacità di adattamento alle modificazioni del gioco, dei regolamenti, dei materiali
* Programmazione attenta della stagione e delle strategie di recupero e modulazione continua dei carichi di lavoro
* Continuo confronto tra staff tecnico e staff sanitario
* Costruzione di percorsi adattabili e flessibili
* Valutazioni basate su criteri condivisi e consolidati
* Attenzione alle nuove metodologie e tecnologie
* **Creazione di un sistema di prevenzione e gestione dei traumi che sia solido (basato sulle evidenze e sulle esperienze), adattabile, flessibile, condiviso**

GRAZIE!