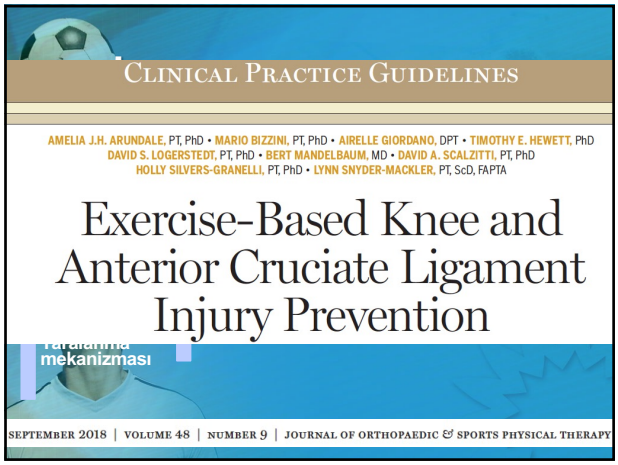

DİZ YARALANMALARINDA
REHABİLİTASYON
DİZ YARALANMALARINI
ÖNLEMEDE STRATEJİLER
PROF.DR. GÜL BALTACI
Fizyoterapist
gul.baltaci@guven.com.tr

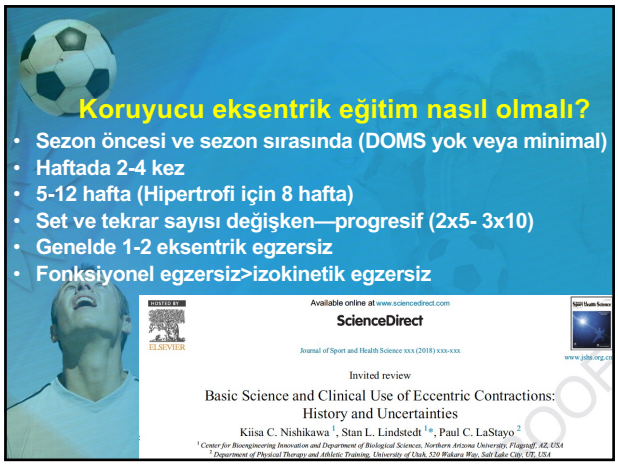
1


CLINICAL PRACTICE GUIDELINES
AMELIA J.H. ARUNDALE, PT, PhD • MARIO BIZZINI, PT, PhD • AIRELLE GIORDANO, DPT • TIMOTHY E. HEWETT, PhD
DAVID S. LOGERSTEDT, PT, PhD • BERT MANDELBAUM, MD • DAVID A. SCALZITTI, PT, PhD
HOLLY SILVERS-GRANELLI, PT, PhD • LYNN SNYDER-MACKLER, PT, ScD, FAPTA
Exercise-Based Knee and Anterior Cruciate Ligament Injury Prevention
mekanizması
SEPTEMBER 2018 | VOLUME 48 | NUMBER 9 | JOURNAL OF ORTHOPAEDIC & SPORTS PHYSICAL THERAPY

2


UZAMA
KASILMA
Kiisa C. Nishikawa et al., Basic Science and Clinical Use of Eccentric Contractions: History and Uncertainties, Journal of Sport and Health Science (2018);

3


Koruyucu eksentrik eğitim nasıl olmalı?
• Sezon öncesi ve sezon sırasında (DOMS yok veya minimal)
• Haftada 2-4 kez
• 5-12 hafta (Hipertrofi için 8 hafta)
• Set ve tekrar sayısı değişken—progresif (2x5- 3x10)
• Genelde 1-2 eksentrik egzersiz
• Fonksiyonel egzersiz>izokinetik egzersiz
Available online at www.sciencedirect.com
ScienceDirect
Invited review
Basic Science and Clinical Use of Eccentric Contractions: History and Uncertainties
Kiisa C. Nishikawa, Stan L. Lindstedt, Paul C. LaStayo

4


VMO

5


LEG EXTENSION
The Effect of Neuromuscular Training on the Incidence of Knee Injury in Female Athletes
A Prospective Study
Am. J. Sports Med. 27: 699-706, 1999.

6


LATERAL HEEL DROP
VMO YERDE EKSTANSİYON

7


TERMINAL DİZ EKSTANSİYONU

8


Single Leg Slide
Core stabilite
Eksentrik-konsentrik
Diz dominant
Tsaklis ve diğ. 2015, J Sports Med

9


DÜZ BACAK KALDIRMA

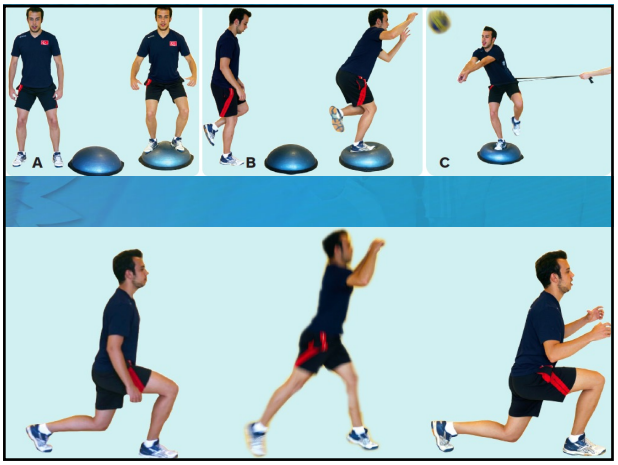
10


Single Leg Roman Dead- Lift
Proximal hamstrings
Eksentrik yüklenme
Kalça stratejisi
Goom ve diğ. 2016, JOSPT
Tsaklis ve diğ. 2015, J Sports Med

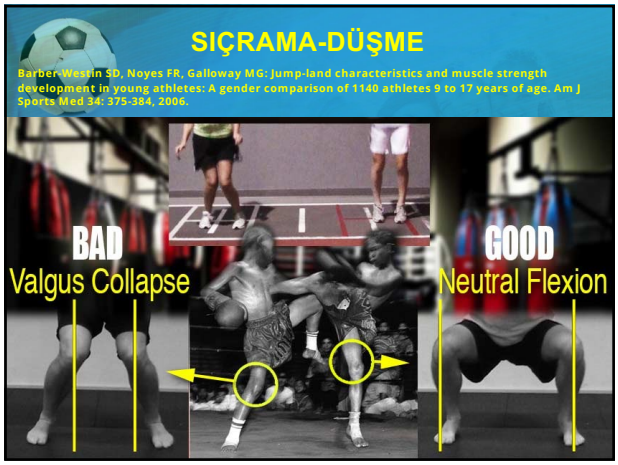
11


A
B
C

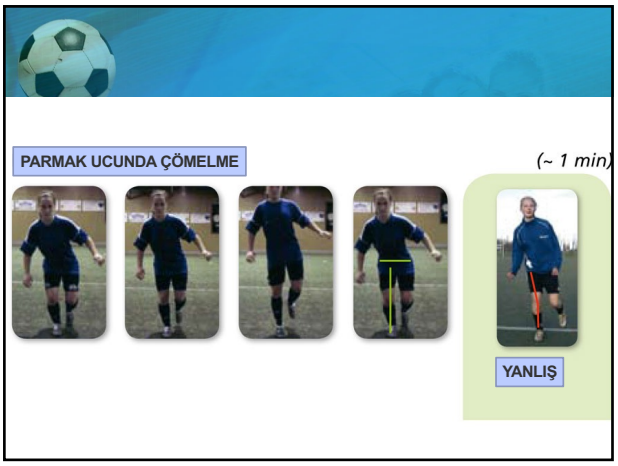
12


A
B
C

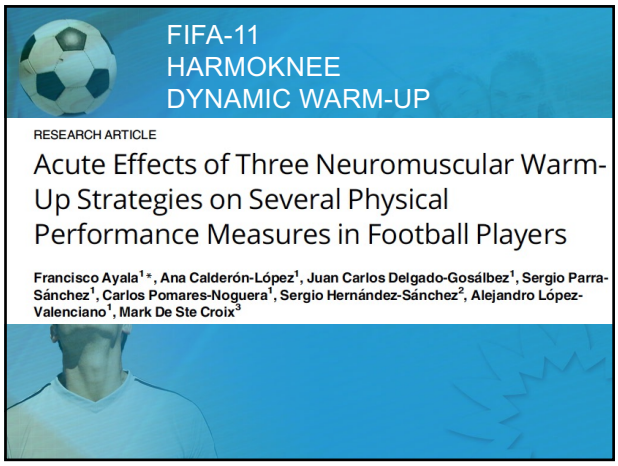
13


SIÇRAMA-DÜŞME
Barber-Westin SD, Noyes FR, Galloway MG: Jump-land characteristics and muscle strength development in young athletes: A gender comparison of 1140 athletes 9 to 17 years of age. Am J Sports Med 34: 375-384, 2006.
BAD
Valgus Collapse
GOOD
Neutral Flexion

14


PARMAK UCUNDA ÇÖMELME
(~ 1 min)
YANLIŞ

15


FIFA-11
HARMOKNEE
DYNAMIC WARM-UP
RESEARCH ARTICLE
Acute Effects of Three Neuromuscular Warm-Up Strategies on Several Physical Performance Measures in Football Players
Francisco Ayala[1]*, Ana Calderón-López[1], Juan Carlos Delgado-Gosálbez[1], Sergio Parra-Sánchez[1], Carlos Pomares-Noguera[1], Sergio Hernández-Sánchez[2], Alejandro López-Valenciano[1], Mark De Ste Croix[3]

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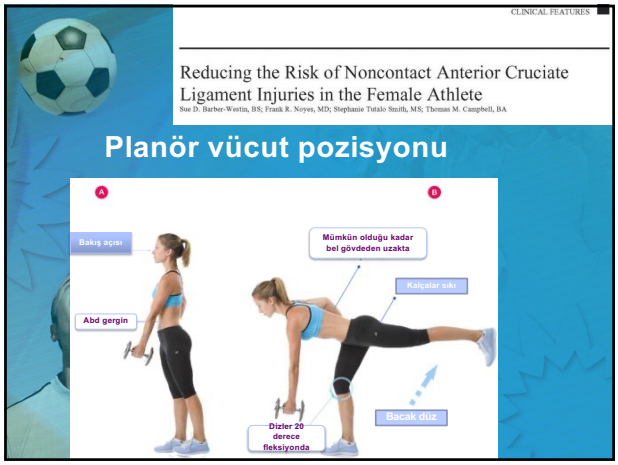
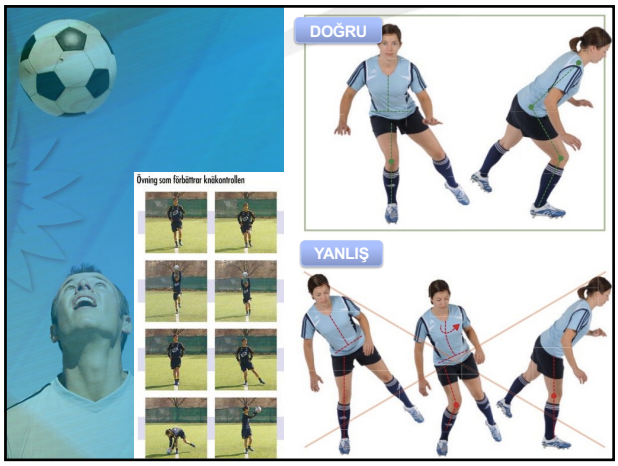

CLINICAL FEATURES
Reducing the Risk of Noncontact Anterior Cruciate Ligament Injuries in the Female Athlete
Sue D. Barber-Westin, BS; Frank R. Noyes, MD; Stephanie Tutalo Smith, MS; Thomas M. Campbell, BA
Planör vücut pozisyonu
A
B
Bakış açısı
Abd gergin
Mümkün olduğu kadar bel gövdeden uzakta
Kalçalar sıkı
Bacak düz
Dizler 20 derece fleksiyonda

18


KNÄKONTROLL
New
KNÄKONTROLL
• 6 Exercises
• Single leg squat
• Double leg squat
• Bridge
• Plank
• Lunge
• Jump/Landing
• 4 levels and partner version

19


Övning som förbättrar knäkontrollen
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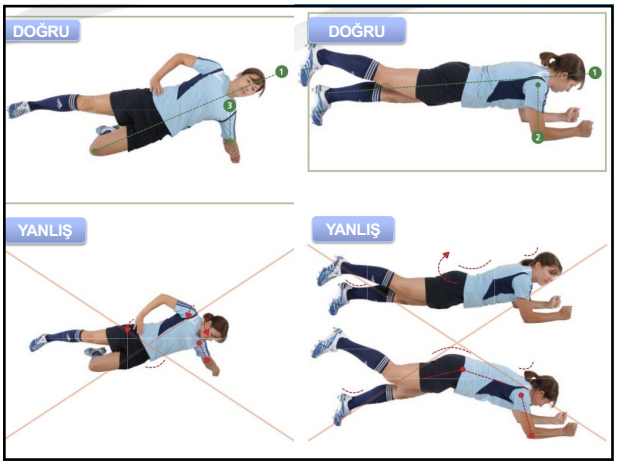
20


DOĞRU
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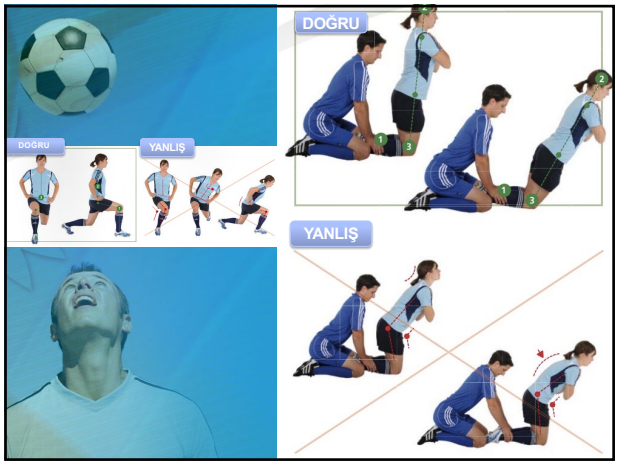
YANLIŞ

21


DOĞRU
DOĞRU
YANLIŞ
YANLIŞ

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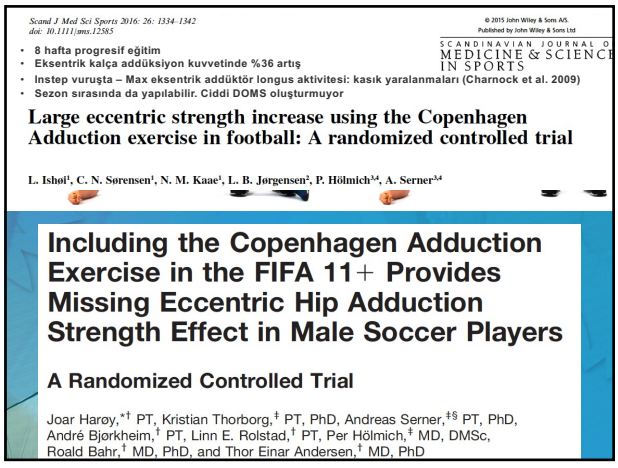
PARTNER VEYA
FİZYOTERAPİST
EŞLİĞİNDE
DOĞRU
YANLIŞ

23


Scand J Med Sci Sports 2016: 26: 1334–1342
doi: 10.1111/sms.12585
© 2015 John Wiley & Sons A/S.
Published by John Wiley & Sons Ltd
SCANDINAVIAN JOURNAL OF MEDICINE & SCIENCE IN SPORTS
• 8 hafta progresif eğitim
• Eksentrik kalça addüksiyon kuvvetinde %36 artış
• Instep vuruşta – Max eksentrik addüktör longus aktivitesi: kasık yaralanmaları (Charnock et al. 2009)
• Sezon sırasında da yapılabilir. Ciddi DOMS oluşturmuyor
Large eccentric strength increase using the Copenhagen Adduction exercise in football: A randomized controlled trial
L. Ishøi[1], C. N. Sørensen[1], N. M. Kaae[1], L. B. Jørgensen[2], P. Hölmich[3,4], A. Serner[3,4]
Including the Copenhagen Adduction Exercise in the FIFA 11+ Provides Missing Eccentric Hip Adduction Strength Effect in Male Soccer Players
A Randomized Controlled Trial
Joar Harøy,*† PT, Kristian Thorborg,‡ PT, PhD, Andreas Serner,‡§ PT, PhD, André Bjørkheim,† PT, Linn E. Rolstad,† PT, Per Hölmich,‡ MD, DMSc, Roald Bahr,† MD, PhD, and Thor Einar Andersen,† MD, PhD

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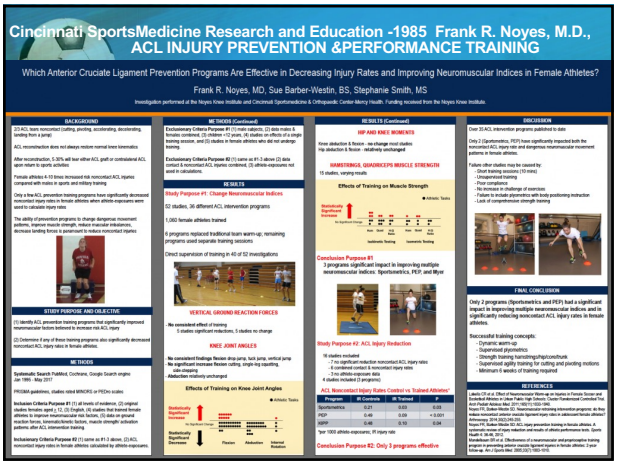
Cincinnati SportsMedicine Research and Education -1985 Frank R. Noyes, M.D.,
ACL INJURY PREVENTION &PERFORMANCE TRAINING
Which Anterior Cruciate Ligament Prevention Programs Are Effective in Decreasing Injury Rates and Improving Neuromuscular Indices in Female Athletes?
Frank R. Noyes, MD, Sue Barber-Westin, BS, Stephanie Smith, MS
BACKGROUND
METHODS (Continued)
RESULTS (Continued)
DISCUSSION
STUDY PURPOSE AND OBJECTIVE
METHODS
RESULTS
VERTICAL GROUND REACTION FORCES
KNEE JOINT ANGLES
HIP AND KNEE MOMENTS
HAMSTRINGS, QUADRICEPS MUSCLE STRENGTH
FINAL CONCLUSION
REFERENCES

25


SPORTSMETRICS
• 2 dk dinamik ısınma
• 5 dk pliometrik/sıçrama
• 7 dk kuvvetlendirme
• 4 dk esneklik drilleri
• 2 dk ısınma çeviklik
Journal of Athletic Enhancement
Research Article
A Six-Week Neuromuscular and Performance Training Program Improves Speed, Agility, Dynamic Balance, and Core Endurance in Junior Tennis Players

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En yaygın yapılan 6 önemli hata
1. Hastanın mahremiyetini yanlışlıkla sözlü olarak ihlal etme.
2. Hasta bilgilerinin ve tıbbi kayıtların gizliliği ile ilgili kural ve düzenlemeleri bilmemek.
3. Sporcuya göre "normal" yaralanmamış veri oluşturmamak.
4. Kanıta dayalı uygulamalardan çok, kararları deneyim ve içgüdülere dayanarak vermek.
5. Bir terapötik modaliteye ilişkin olarak sporcuyu eğitmemek.
6. Katastrofik yaralanma olayları için gerekli olan malzemelerin miktarını küçümsemek.

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