

DİZ YARALANMALARINDA REHABİLİTASYON

Editör
Prof. Dr. GÜL BALTACI

Spor Fizyoterapistleri Derneği

TEDAVİ SONRASI SPORA DÖNÜŞ: GREFT TİPİNİN REHABİLİTASYON TEKNİĞİNE ETKİSİ VAR MI?

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Spor fizyoterapisti

HEDEF **RETURN TO SPORT**

BİLİM **SANAT**

Güzel yapılmış bir enstrümandan güzel ses çıkmasını sağlayan kişileriz.

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Yeniden yaralanma KORKUSU:

- Kendine güven
- Rehab katılım isteksizliği
- Ağrıda artış
- Davranışların kontrolü
- Anksiyete artar
- Motivasyon azalır

REHABİLİTASYON VE SPORA DÖNÜŞ

WEEKS 1-3	100° knee flexion range and full extension Independent quadriceps activation Walking without crutches by the end of week 3
WEEKS 4-6	120° knee flexion range Normal gait cycle Star walking with good knee control
WEEKS 7-10	Full range Able to do light jogging
MONTHS 3-4	JOGGING TO RUNNING PHASE
MONTHS 4-5	AGILITY PHASE
MONTHS 5-6	RETURN TO DRILLS PHASE
MONTHS 6-7	RETURN TO PRACTICE PHASE
MONTHS 7-8	RETURN TO COMPETITION PHASE

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Hasta eğitimi: Rehabilitasyon süreci hakkında bilgilendirme

Cerrahi-3 ay: Düzenli gözetim altında

3.ay-6.ay: Spora özgü testler

6.Ay sonrası: Aylık kontrol

1.yıl: Spora dönüş

Kinezyofobi ile baş etmek

Ev programının önemi

Decision to Return to Sport After Anterior Cruciate Ligament Reconstruction, Part I: A Qualitative Investigation of Psychosocial Factors

Julie P. Burland, MS, ATC¹; Jenny Toonstra, PhD, LAT, ATC²; Jennifer L. Werner, MS, ATC³; Carl G. Mathiassen, PhD, ATC, FMSAT⁴; Dana M. Howell, PhD, OTD, OTR/L⁵; Jennifer S. Howard, PhD, LAT, ATC⁶

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Rehabilitasyonda Hedefler

Tracking Ability, Motor Coordination, and Functional Determinants After Anterior Cruciate Ligament Reconstruction

Hayri Baran Yosmaoğlu, Gül Baltacı, Defne Kaya, and Hamza Ozer

Context: The development pattern of motor coordination, strength, and functional ability during recovery from anterior cruciate ligament (ACL) reconstruction.

Psikolojik stres=kinezyofobi

Self-Reported Fear Predicts Functional Performance and Second ACL Injury After ACL Reconstruction and Return to Sport: A Pilot Study

Mark V. Paterno, PT, PhD, MBA, SCST¹; Kathryn Flynn, DPT, SCST²; Staci Thomas, MS³; and Laura G. Schmitt, PT, PhD⁴

Greft iyileşmesi

Cerrahi teknik

- Greft tipi
- Eşlik eden problemler
- İyB
- Menisküs
- Kıkırdak

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ÖÇBR SONRASI REHABİLİTASYON SÜRECİ

0-2 hf ROM F&E 0-90° Yürüme eğitimi Q kontrol	3-10 hf 120° diz F Fonksiyonel kuvvet Kalça-kalf- Q-H ko- kontraksyonu	11-17 hf Spora özel aktivitelere geçiş 2km ¹ koşu	18-23 hf Pliometrik aktiviteler Hız aktiviteleri	23-36 hf Full takım antrenmanı Spora dönüş
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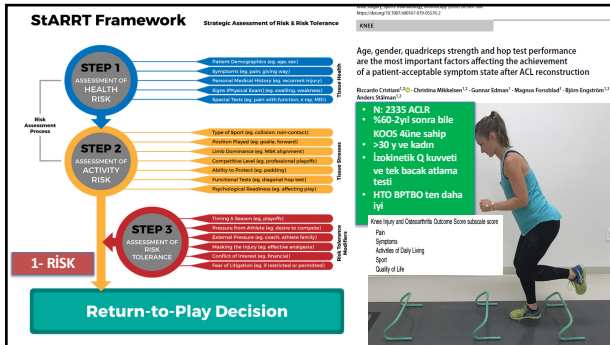
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Eighty-three per cent of elite athletes return to preinjury sport after anterior cruciate ligament reconstruction: a systematic review with meta-analysis of return to sport rates, graft rupture rates and performance outcomes

Br J Sports Med 2018;**52**:128–138.

Courtney C H Lai,¹ Clare L Ardern,^{1,2,3} Julian A Feller,⁴ Kate E Webster¹

- Spora dönüş elit sporcularda %83
- Ortalama süre: 6-13 ay
- Greft yırtılma oranı: %5.2

N:3572
makaleden 24
makale
incelenmiş

14

SUSANNE BEISCHER, PT, PhD^{1,2} • LINNÉA GUSTAVSSON, PT² • ERIC HAMRIN SENORSKI, PT, PhD^{1,2}
JÖN KARLSSON, MD, PhD¹ • CHRISTOPHER THOMÉE, BS¹ • KRISTIAN SAMUELSSON, MD, PhD¹ • ROLAND THOMÉE, PT, PhD^{1,2}

	Subsequent ACL Injury (n = 18)	No Subsequent ACL Injury (n = 141)
Time to RTS, mo	10.1 ± 3.3 8.6 (7.6-19.4)	12.7 ± 4.8 11.0 (7.5-37.9)
Symmetrical muscle function ^b closest to RTS, n (%)	5 (27.8)	33 (23.4)
Quadriceps LSI, %	92.3 ± 12.1 93.2 (56.9-112.0)	95.7 ± 9.4 96.5 (74.6-121.3)

Abbreviations: ACL, anterior cruciate ligament; LSI, limb symmetry index; RTS, return to sport.
^aValues are mean ± SD and median (range) unless otherwise indicated.
^bAll 5 tests of muscle function: LSI of 90% or greater.

n=159
18-25 yaş (%64 K)

Genç sporcularda Q kuvveti veya simetrik kas fonksiyonunun iyi olması yeni ACL yaralanması ile ilişkili değil

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2-Spora dönüş evreleri

Contents lists available at ScienceDirect

The Knee

ELSEVIER

External supports improve knee performance in anterior cruciate ligament reconstructed individuals with higher kinesiophobia levels

Gulcan Harput ^{a,*}, Burak Ulusoy ^a, Hamza Ozer ^b, Gul Baltaci ^c, Jim Richards ^d

^a Hacettepe University, Faculty of Health Sciences, Department of Physiotherapy and Rehabilitation, Ankara, Turkey
^b Gazi University, Faculty of Medicine, Department of Orthopaedic and Traumatology, Ankara, Turkey
^c Private Ankara Güven Hospital, Ankara, Turkey
^d University of Central Lancashire, Allied Health Research Unit, Preston, UK

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Knee Surg Sports Traumatol Arthrosc
DOI 10.1007/s00167-011-1491-3

KNEE

The effect of prophylactic knee bracing on performance: balance, proprioception, coordination, and muscular power

Gül Baltacı • Gulcan Aktas • Elif Camci • Sevim Oksuz • Seda Yıldız • Tugce Kalaycioglu

Unun dönem avantajı yok
(Groven, KSTA 2010)
• Quadriceps kas kontrolü olmadığında,
• Diz stabilitesinin sağlanmasında,
• İyileşmekte olan grefti korumada

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Does kinesiotaping increase knee muscles strength and functional performance?¹

Gulcan Aktas and Gul Baltaci*

Kinesio® Tape Enhances Functional Performance in ACL Reconstructed Patients Who Reach the Return to Sport Phase

Gulcan Harput, PT, PhD¹ Gül Baltaci, PT, PhD, CKTIP²

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3-Nöromuskuler Kontrol= Kas hafızası

Physical Therapy Reviews 2003; 8: 5-16

DOES PROPRIOCEPTIVE TRAINING DURING KNEE AND ANKLE REHABILITATION IMPROVE OUTCOME?

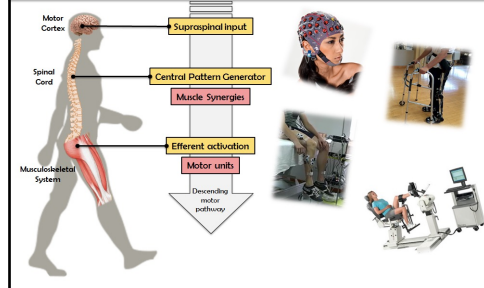
GUL BALTACI* and HAROLD W. KOHL**

*School of Physiotherapy and Rehabilitation, Hacettepe University, Ankara, Turkey
**International Life Sciences Institute, Atlanta, Georgia, USA



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Motor kontrolde nöromuskuler mekanizmalar



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Sports Medicine (2019) 49:853–865
https://doi.org/10.1007/s40279-019-01058-0

REVIEW ARTICLE

Principles of Motor Learning to Support Neuroplasticity After ACL Injury: Implications for Optimizing Performance and Reducing Risk of Second ACL Injury

Alli Gokeler^{1,2,3} · Dorothee Neuhaus¹ · Anne Benjaminse^{3,4} · Dustin R. Grooms^{5,6} · Jochen Baumeister^{1,7,8}

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Nöromusküler Re-aktivasyon nasıl sağlanır?



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Journal of Sport Rehabilitation, 2015, 24, 398-404
http://jstb.doi.org/10.1125/jstb.2014-0224
© 2015 Human Kinetics, Inc.

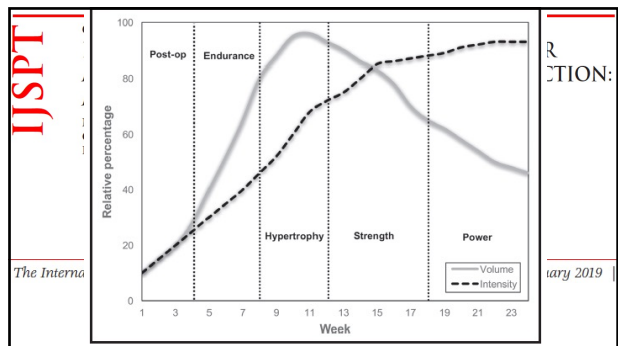
Human Kinetics
ORIGINAL RESEARCH REPORT

Quadriceps and Hamstring Strength Recovery During Early Neuromuscular Rehabilitation After ACL Hamstring-Tendon Autograft Reconstruction

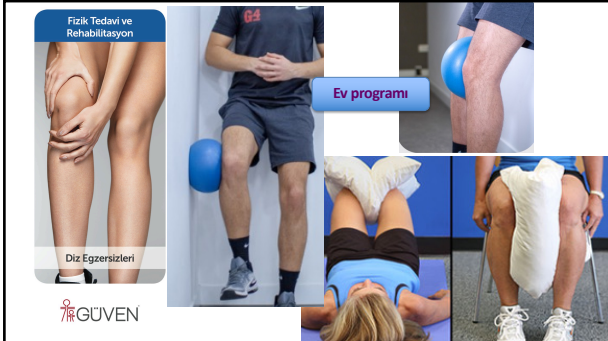
Gulcan Harput, H. Erkan Kilinc, Hamza Ozer, Gul Baltaci, and Carl G. Mattacola

Context: There is lack of information related to quadriceps and hamstring strength recovery during the early period of rehabilitation after anterior cruciate ligament reconstruction (ACLR) using hamstring-tendon graft (HTG). **Objective:** To investigate quadriceps and hamstring isometric strength at 4-, 8-, and 12-wk time points after ACLR and to document the strength changes of these muscles over time. **Design:** Longitudinal study. **Participants:** 24 patients (age 28.1 ± 8.1 y) who underwent unilateral single-bundle anatomic ACLR

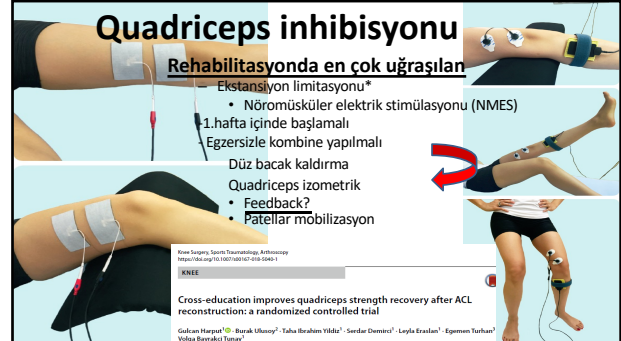
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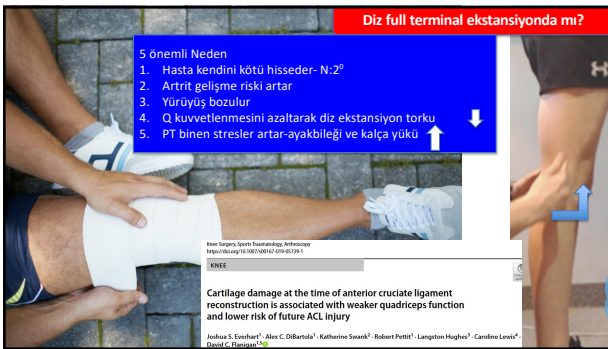
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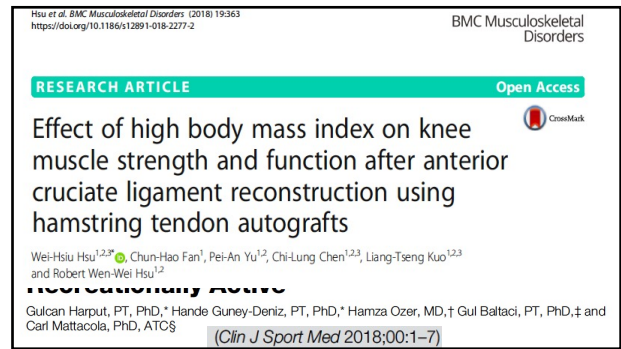
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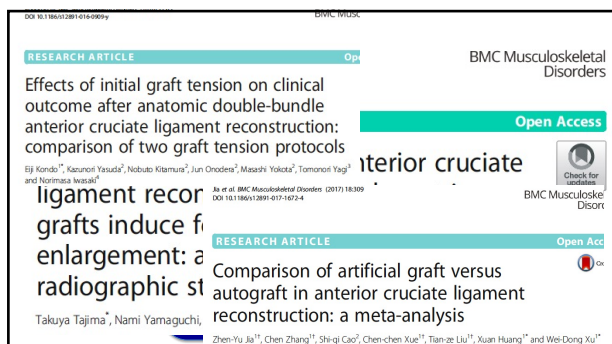
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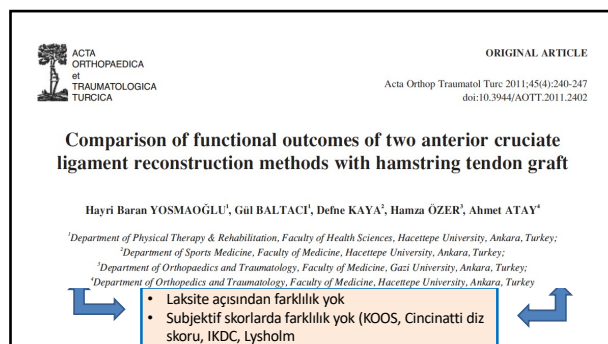
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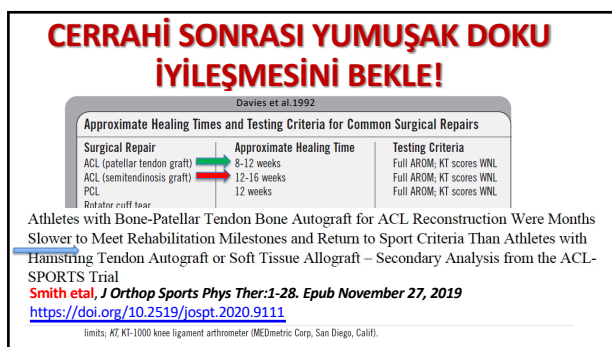
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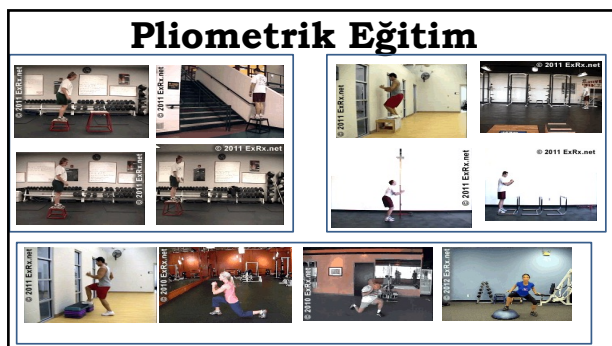
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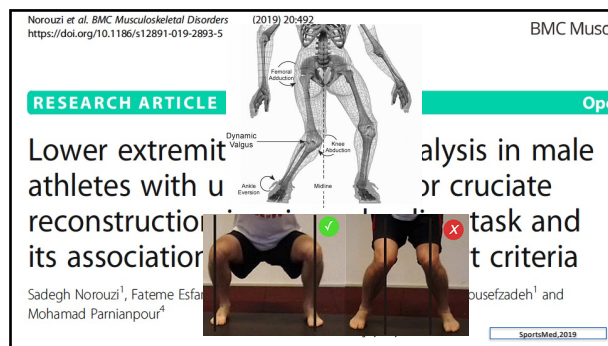
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5-PERFORMANS TESTLERİ

Hop tests can result in higher limb symmetry index values than isokinetic strength and leg press tests in patients following ACL reconstruction

Takashi Nagai^{1,2} · Nathan D. Schilaty^{1,2,3} · Edward R. Laskowski^{1,4} · Timothy E. Hewett^{1,2,3,4}

Received: 22 January 2019 / Accepted: 18 April 2019
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Contents lists available at ScienceDirect

The diagram illustrates two types of tests: hop tests and isokinetic strength tests. Hop tests show a person jumping a certain distance, while isokinetic strength tests show a person performing a leg press on a machine. The hop tests are shown to result in higher limb symmetry index values compared to isokinetic strength and leg press tests.

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SPORA DÖNÜŞTE KOŞU

Koşu eğitimi

- Quadriceps indeks: %60
- Diz ekstansiyon ROM = sağlam diz
- Diz fleksiyonu= Sağlam diz veya 2 derece az
- Ağrı <1 VAS (Lentz et al, AJSM, 2014)

Knee Surg Sports Traumatol Arthrosc (2017) 25:159–164
DOI 10.1007/s00167-016-4288-6

KNEE

Translation and cross-cultural adaptation of the anterior cruciate ligament-return to sport after injury (ACL-RSI) scale into Turkish

Gülcan Harput¹ · Damla Tok¹ · Burak Ulusoy¹ · Leyla Eraslan¹ · Taha Ibrahim Yıldız¹ · Elif Turgut¹ · Serdar Demirci¹ · İrem Düzgün¹ · Volga Bayrakçı Tınay¹ · Gül Baltacı² · Nevin Ergün¹

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Is there any correlation between function and clinical tests in anterior cruciate ligament reconstruction?

Contents lists available at ScienceDirect

The effect of graft size or body mass index on risk of revision after ACL reconstruction using hamstrings autograft

Self-reported function, strength and range of motion have undergone reconstruction with hamstring

Jon Olav Drogseth^{1,2} · Stein Håkon Læstad Lygre⁴ · Tone Gifstad³

Mustafa ÖZER¹, Hamza ÖZER², Hakan Y. SELEK³, Y. GÜL BALTACI⁴, Gülcan HARPUT⁵, Anıl TAŞKESEN⁶, Mehmet ÇETİNKAYA⁷

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En yaygın yapılan 6 önemli hata

1. 24.hf objektif testlerin yapılmaması.
2. Egzersiz ve testlerde ÖNCE SAĞLAM TARAF!!! (Kinezyofobi!!)
3. Egzersizler ve ev programını önemsememek

Hamstring muscle activation and morphology are significantly altered 1–6 years after anterior cruciate ligament reconstruction with semitendinosus graft

Daniel J. Messer^{1,2} · Anthony J. Shield^{1,2} · Morgan D. Williams³ · Ryan G. Timmins⁴ · Matthew N. Bourne⁵

Received: 26 March 2018 / Accepted: 24 January 2019
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N=14 sporcu
Nordic hamstring eğt öncesi-sonrası
İvimi STHasının

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En yaygın yapılan 6 önemli hata

4. Kanıta dayalı uygulamalardan çok, kararları deneyim ve içgüdülere dayanarak vermek.
5. Tedaviye ilişkin sporcuyla eğitmek.
6. Hangi greft tipi ile tedavi edilsin 6.ay sonrası eşit fonksiyonlara sahip olduğunu bilememek

STUDY PROTOCOL

Anterior cruciate ligament- specialized post-operative return-to-sports (ACL-SPORTS) training: a randomized control trial

Kathleen Whitworth¹, Stephanie L. O'Shea², Angela M. Smith³ and Lynn Snyder-Mackler^{1,2}

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Spor Fizyoterapistleri Derneği

SPORA DÖNÜŞTE KOŞU

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