

SPORTBIOMECHANICA

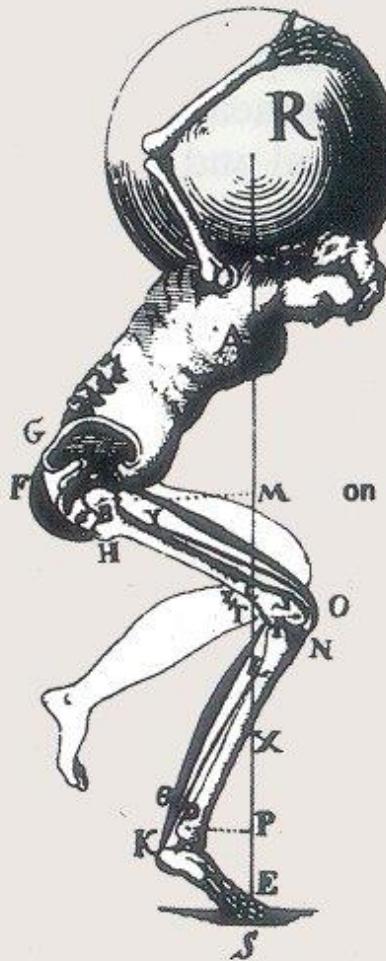
Dirk De Clercq en medewerkers

19 September 2018

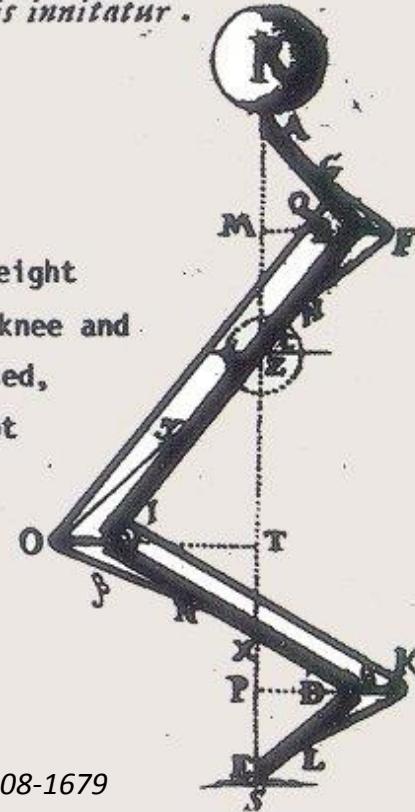
Alumni Geneeskunde Universiteit Gent

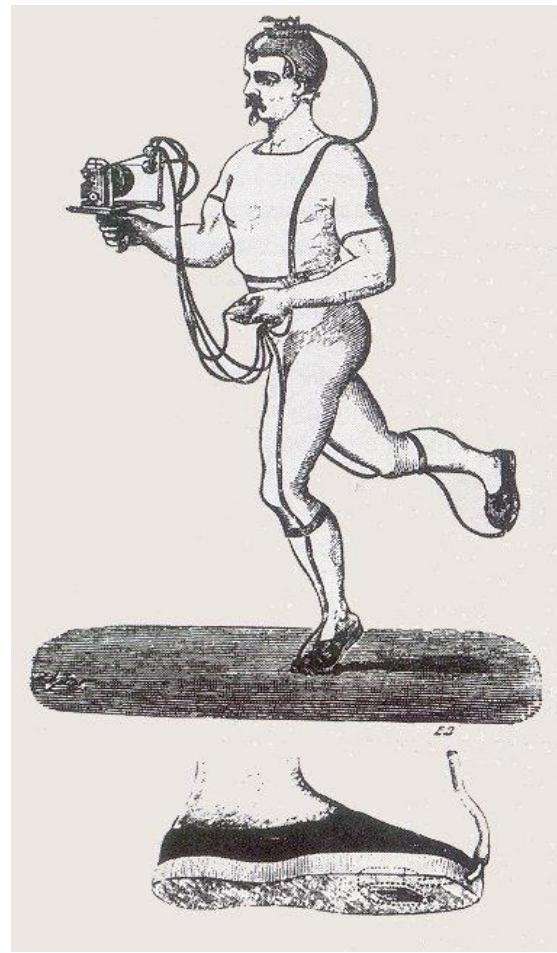
P R O P O S . LIII.

*Si baiulus pondere humoris imposito
onustus flexo femore , genu , & pede , calcaneo elevato ,
extremitati unius pedis innitatur .*

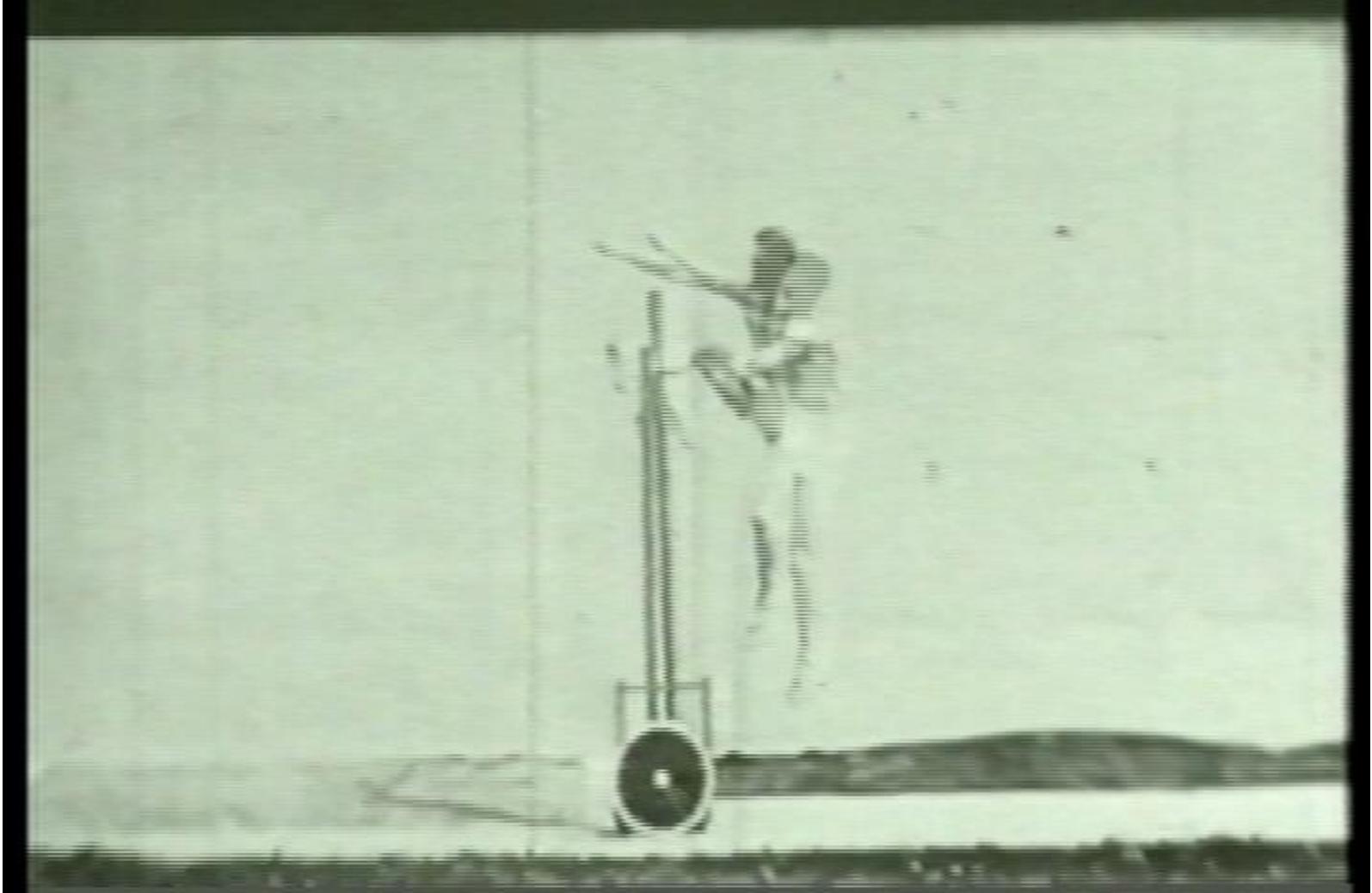


If a porter loaded with a weight
on his shoulders having thigh, knee and
ankle flexed, and heel raised,
rest on the tip of one foot





E.J. Marey "La Machine Animale" 1873

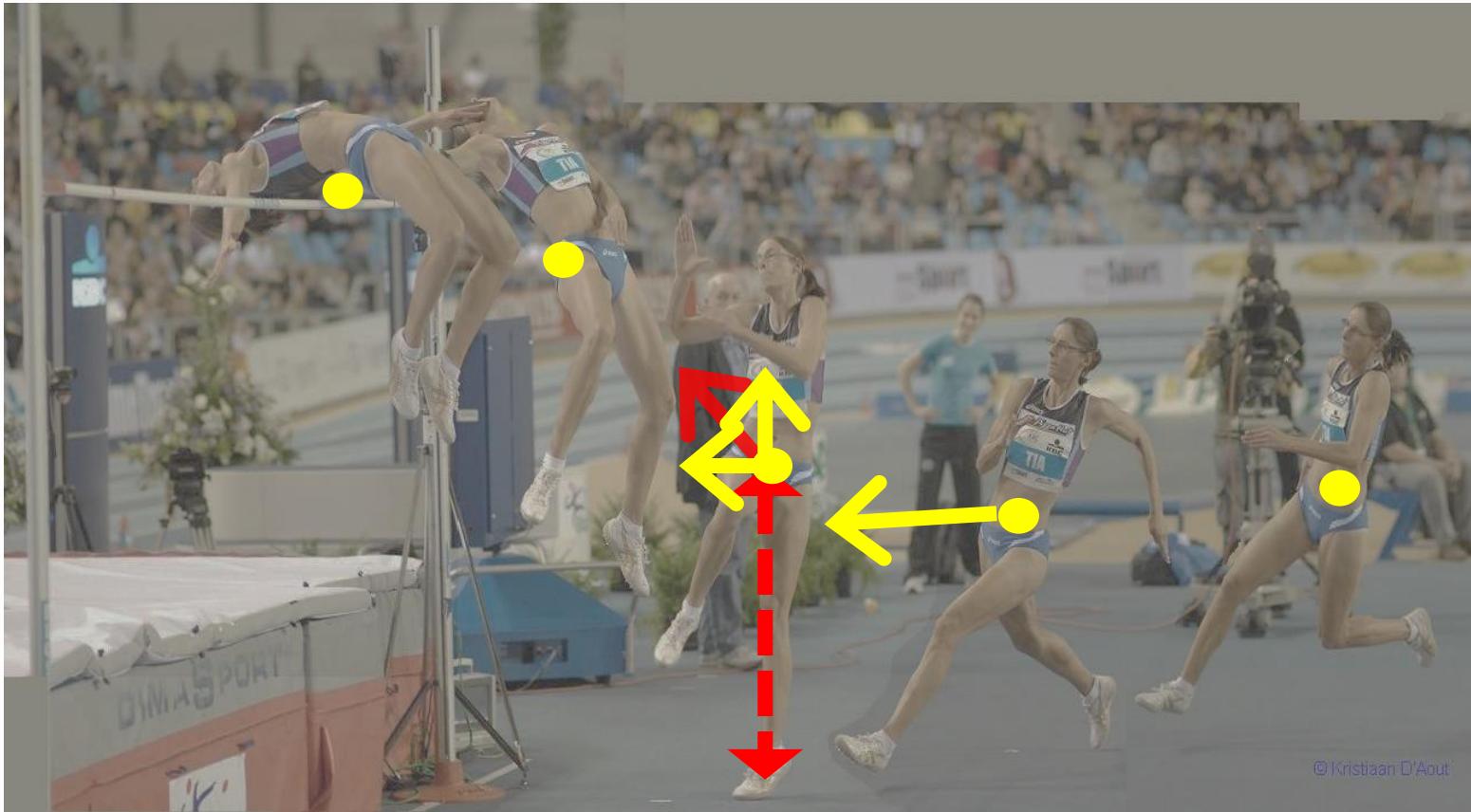


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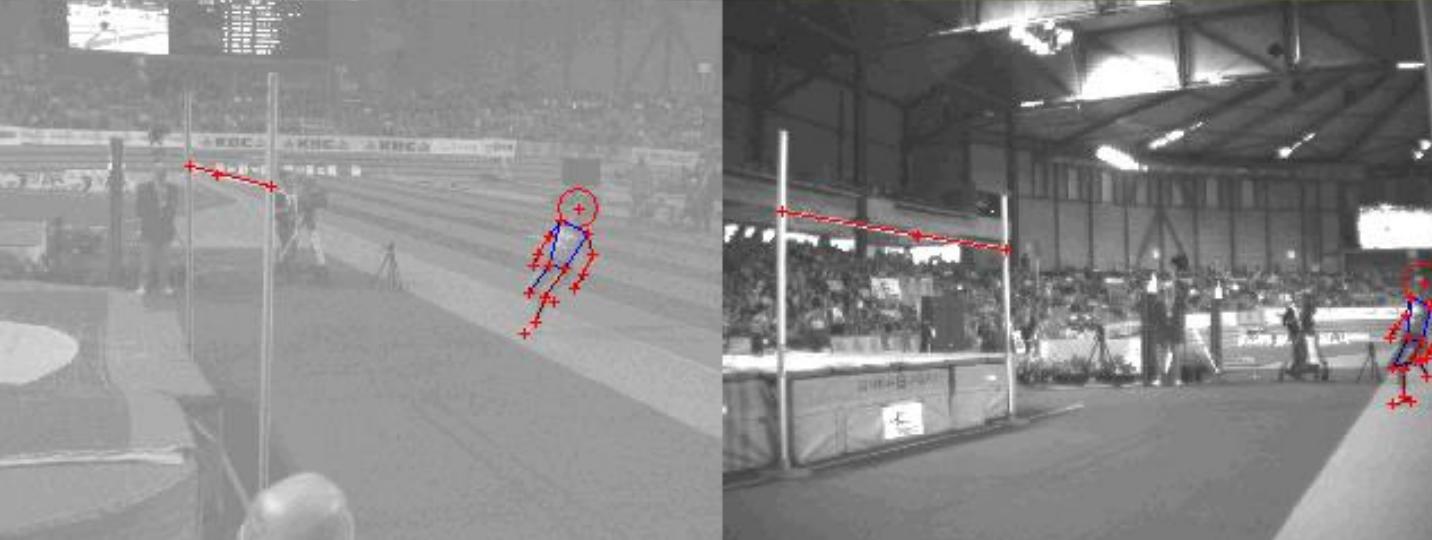
- PRESTATIESPORT en/of BEWEGEN ALS FYSIEKE ACTIVITEIT ?
- GEÏDIVIDUALISEERD en/of BREDE POPULATIE ?
- LABO en/of VELD ?

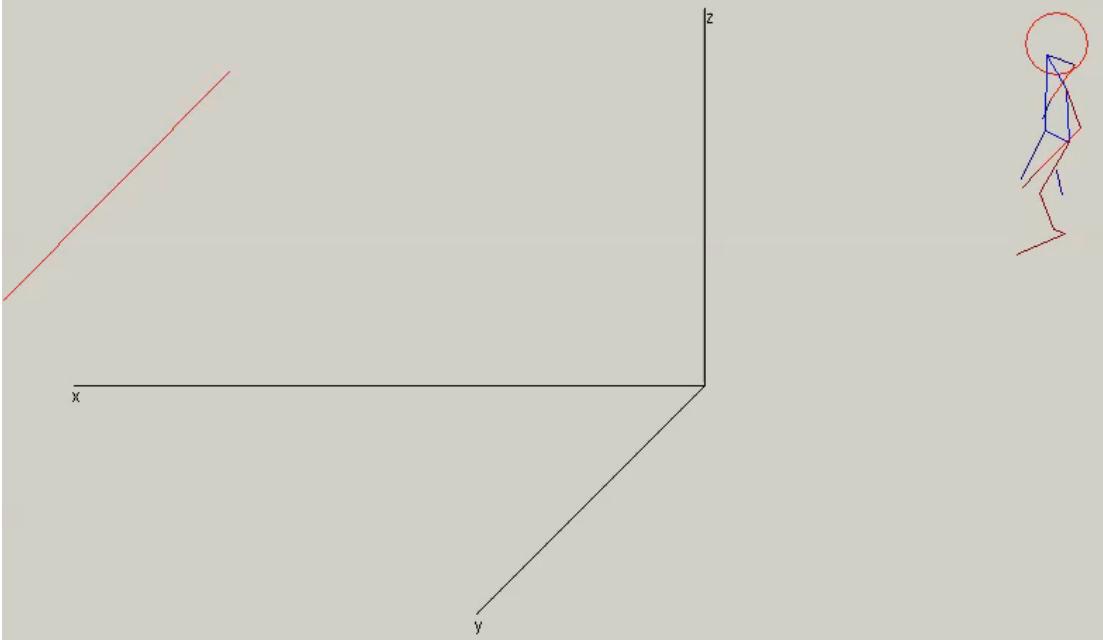


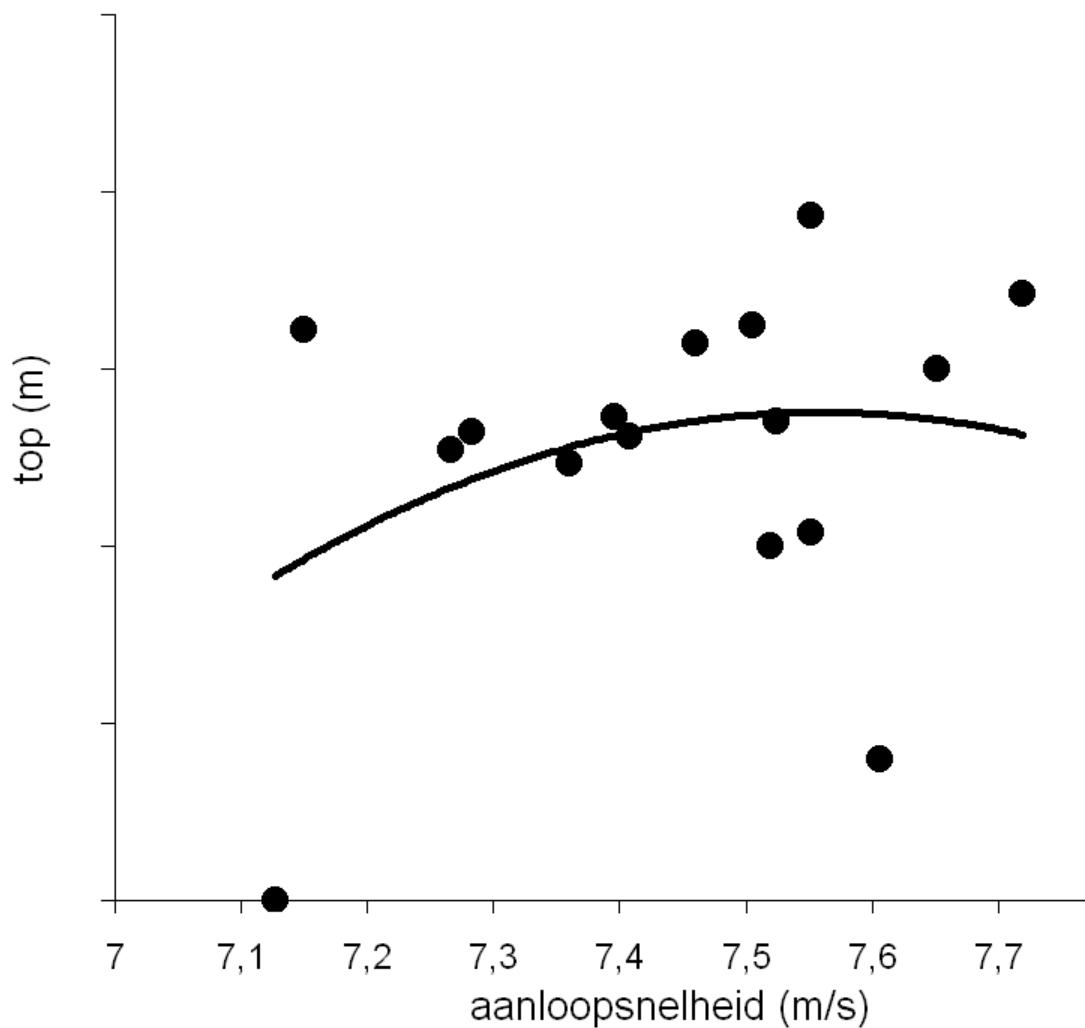
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64 Mio USA (2016)

12% van de 15-80j in EU (2015)

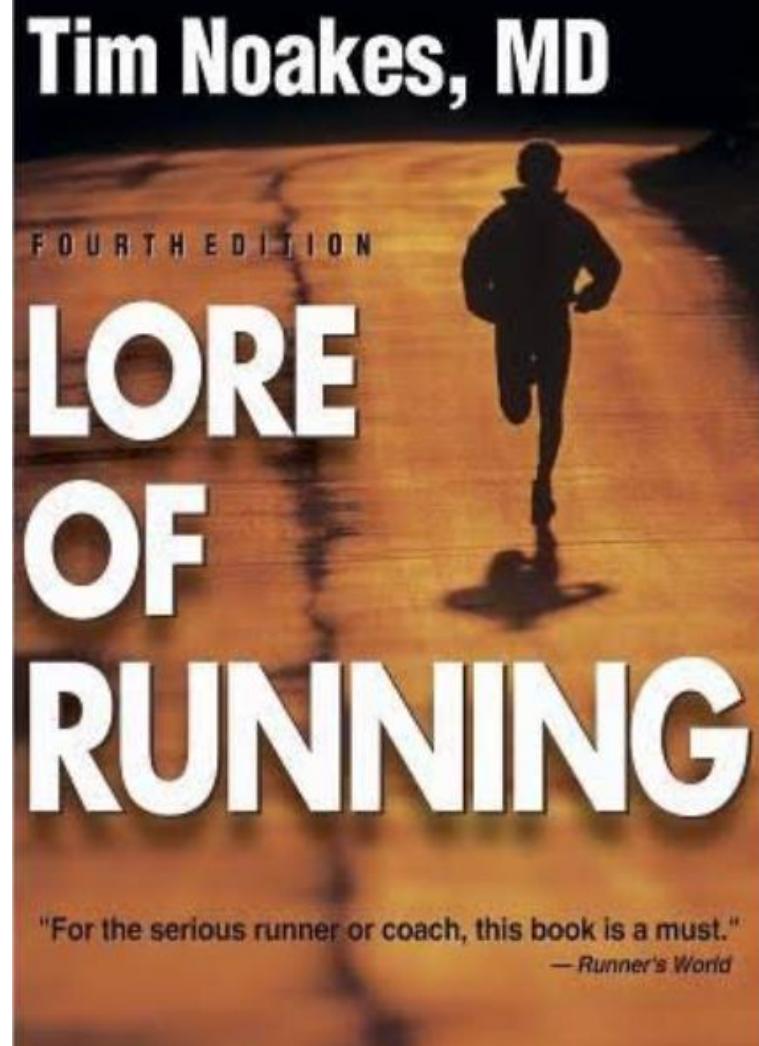
30% van de volwassenen in VL (2016)



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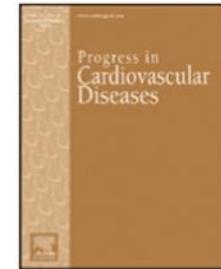




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Running as a Key Lifestyle Medicine for Longevity



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^bDepartment of Cardiology, Hartford Hospital, Hartford, CT

^cDepartment of Exercise Science, Arnold School of Public Health, University of South Carolina, Columbia, SC

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There is compelling evidence that running provides significant health benefits for the prevention of chronic diseases and premature mortality regardless of sex, age, body weight, and health conditions.

Also, running may have the most public health benefits, but is not the best exercise for everyone since orthopedic or other medical conditions can restrict its use by many individuals.

**BEWEGEN EN
STILZITTEN BIJ
VOLWASSENEN:
HOE LANG
VOOR EEN
GEZOND
LEVEN?**


EEN GEZONDE MIX
VAN ZITTEN, STAAN
EN BEWEGEN IS
BELANGRIJK,
ELKE DAG.

de aandachtspunten
hieronder helpen je.

ELKE
VOORUITGANG
TELT

Klein beginnen en stap per
stap optrekken (gaat) is
meer kans op succes.

Graag? Graag niet? Met deze aanbevelingen – bij voorbeeld omdat je gezondheidstoestand daar een rol in speelt – probeer dan zo snel mogelijk de beweging binnen jouw kunnen.

MINDER
LANG
STILZITTEN



URENLANG STILZITTEN
vermijd je best én onderbreek je best regelmatig



MEER
BEWEGEN

voor sterke spieren
en botten



het grootste deel van je dag

LIJKT

150 minuten per week

MATIG

75 minuten per week
OF
EEN
COMBINATIE
VAN BEIDE

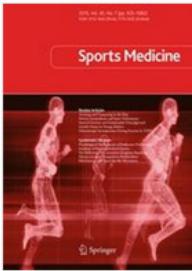
DOE JE 1 MINUUT AAN
HOOG INTENSITEIT?
DAN TELT DIE DUBBEL!

OF VENNESS JE STAPPEN TELLEN?
Dagelijks 10.000 stappen zetten is optimaal,
af 10.000 stappen als je ouder bent dan 60 jaar

ben je ouder dan 65 jaar en deed je lange
tijd niets met beweging?

Geen enkel tempo bij je houdt de voordeel van de
beweging van hoge intensiteit tegen.





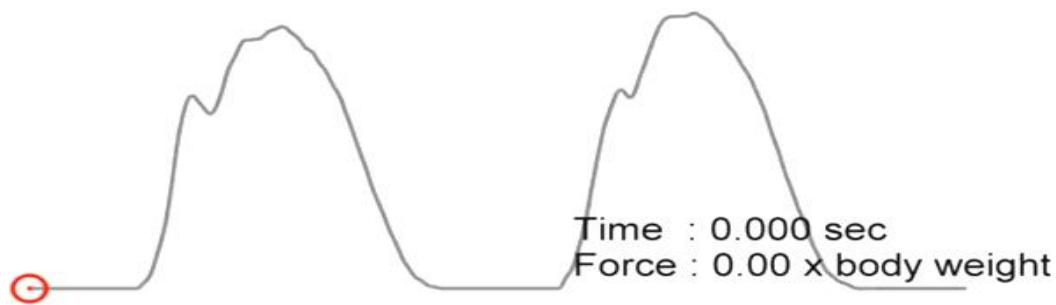
Incidence of Running-Related Injuries Per 1000 h of running in Different Types of Runners: A Systematic Review and Meta-Analysis



BELASTING

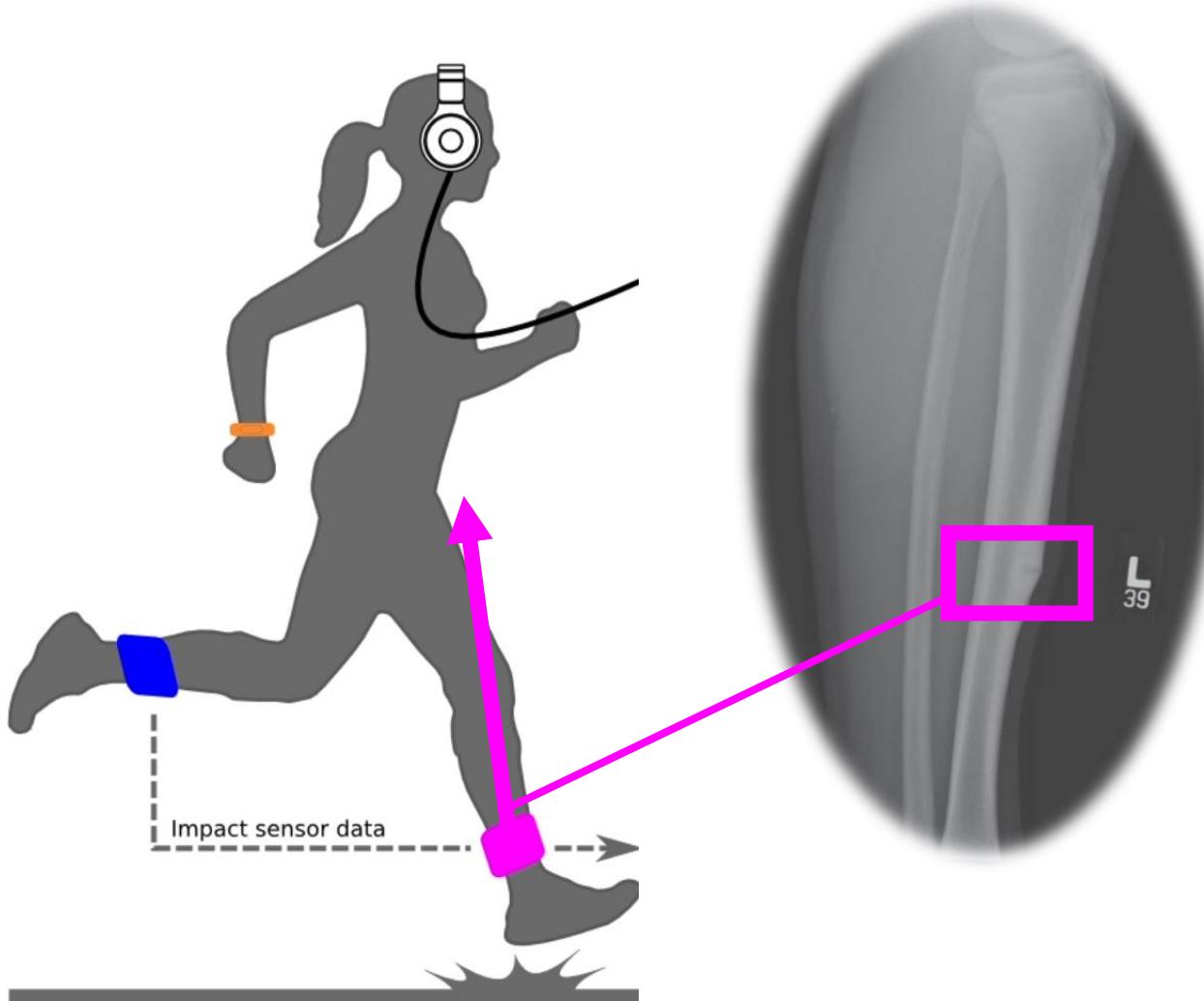
BELASTBAARHEID



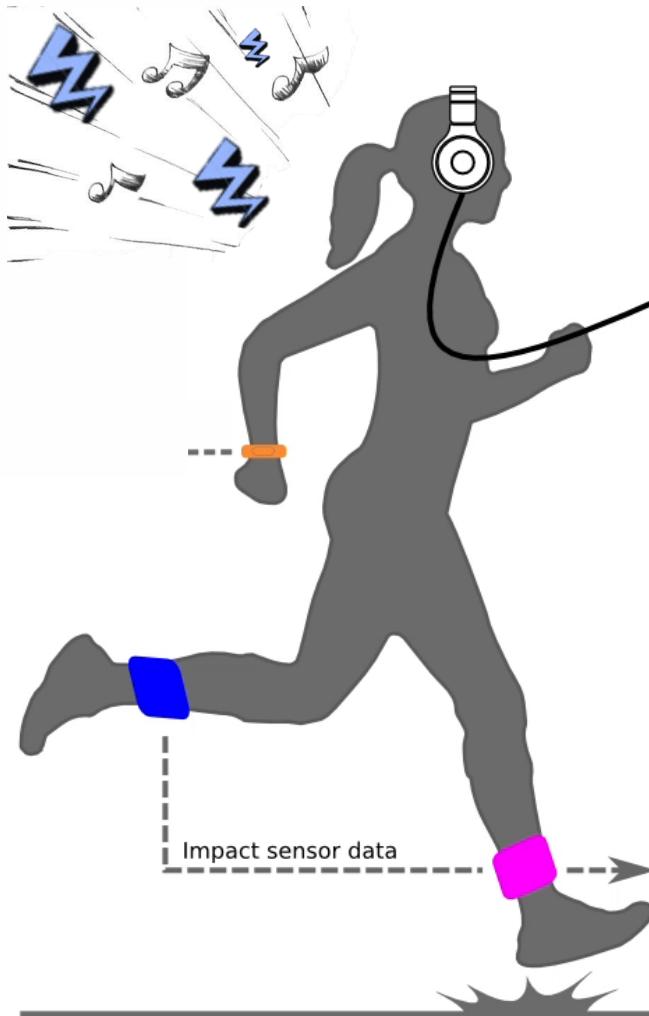


**SPORT
SCIENCE
LABORATORY**
Jacques Rogge





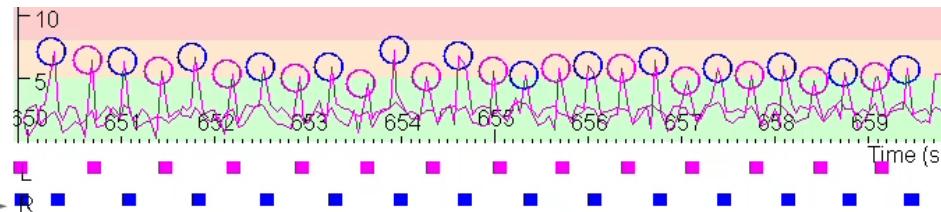
Impact shock
~ tibial stress fracture



Music-based biofeedback

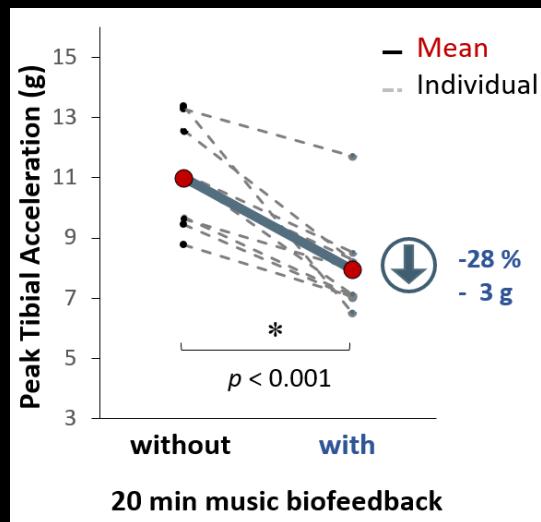
- elevated impact shock
- lower impact shock
- lowest impact shock

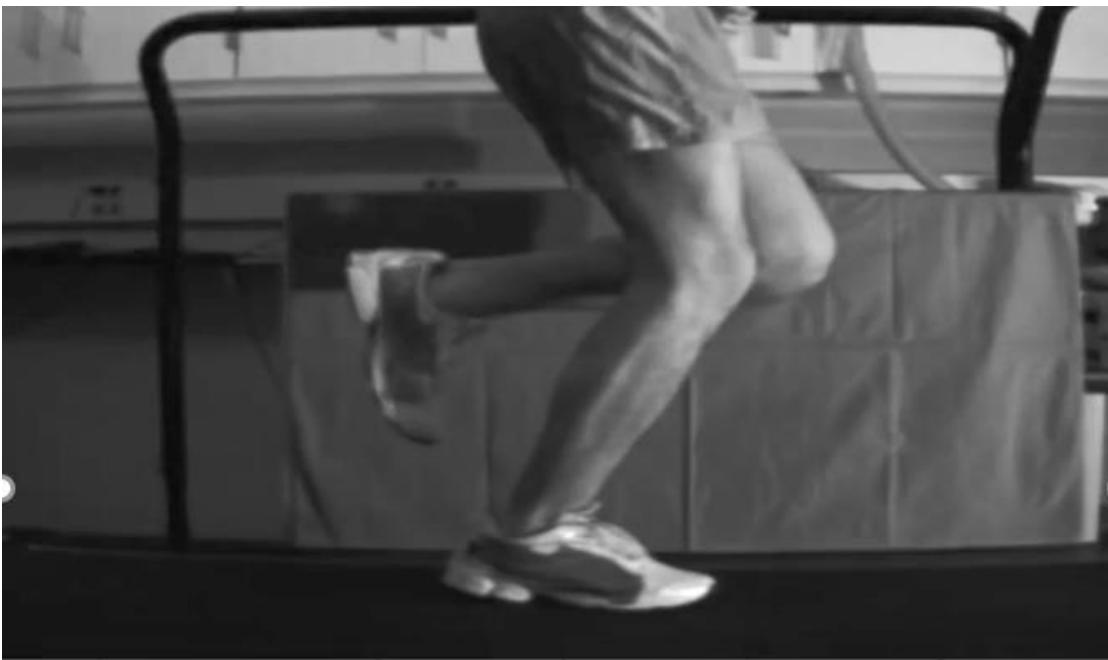
2. synchronized to cadence
beats per min. = steps per min.



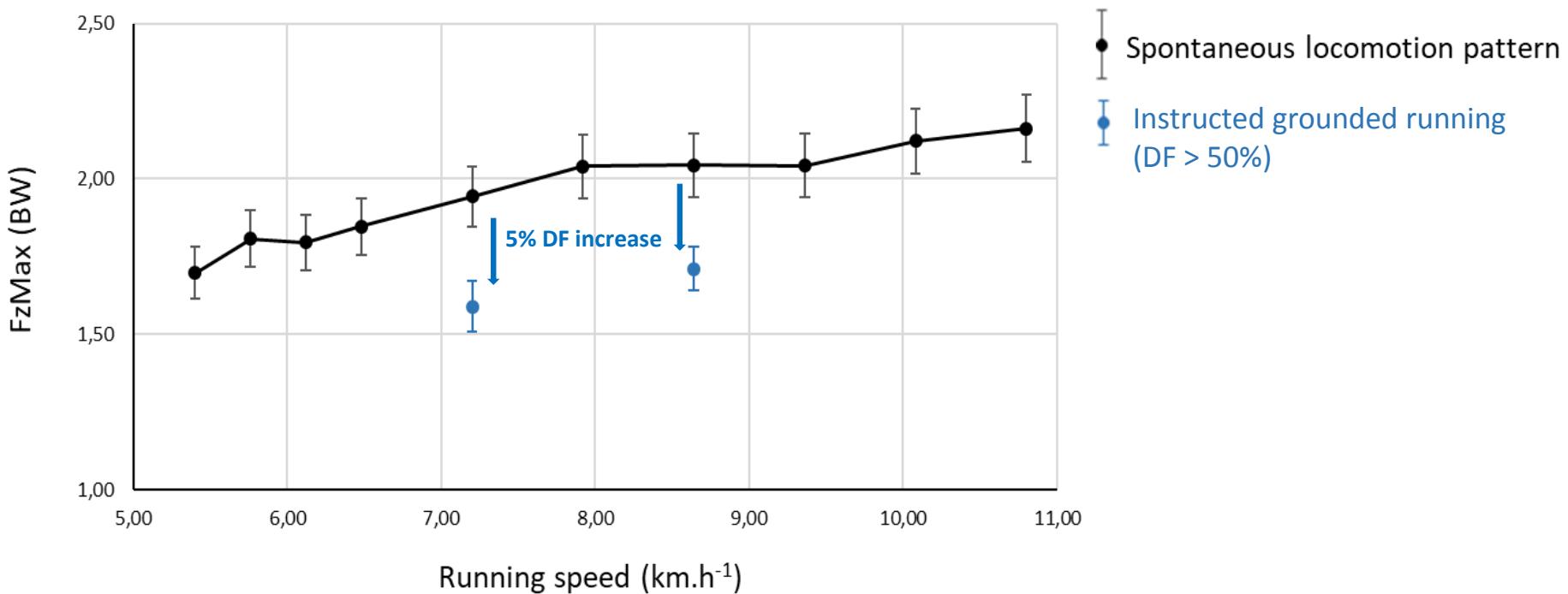
→ runner acts and music reacts!

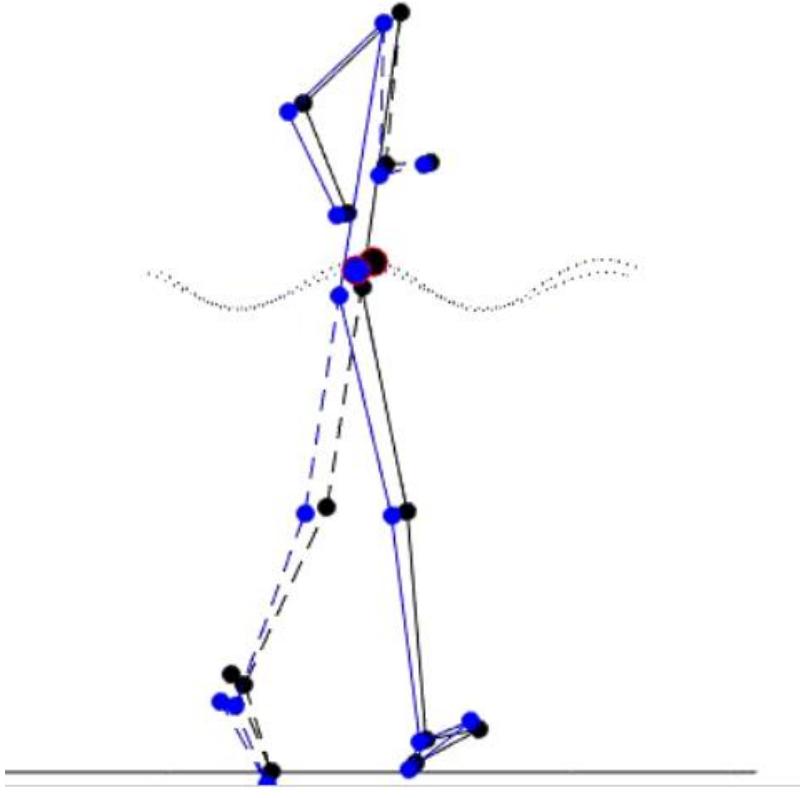
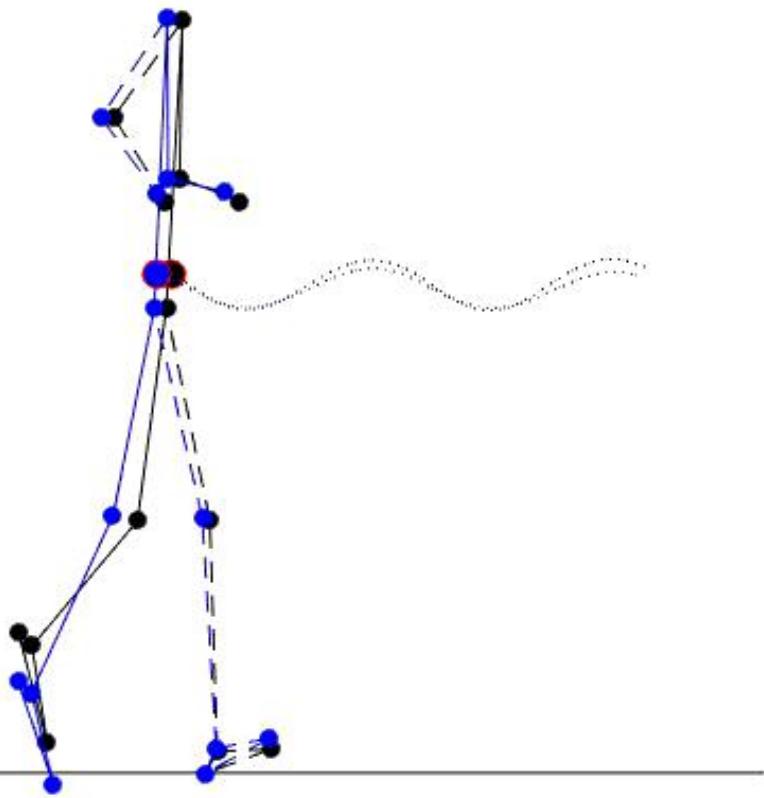






Maximal vertical GRF







Slow Aerial Running



Slow Grounded Running

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- PRESTATIESPORT en BEWEGEN ALS FYSIEKE ACTIVITEIT ?
- GEÏDIVIDUALISEERD en BREDE POPULATIE ?
- LABO en VELD ?
- + MULTIDISCIPLINAIR en TEAM

Dank U

Faculteit en Vakgroep

BIOMOC Team

