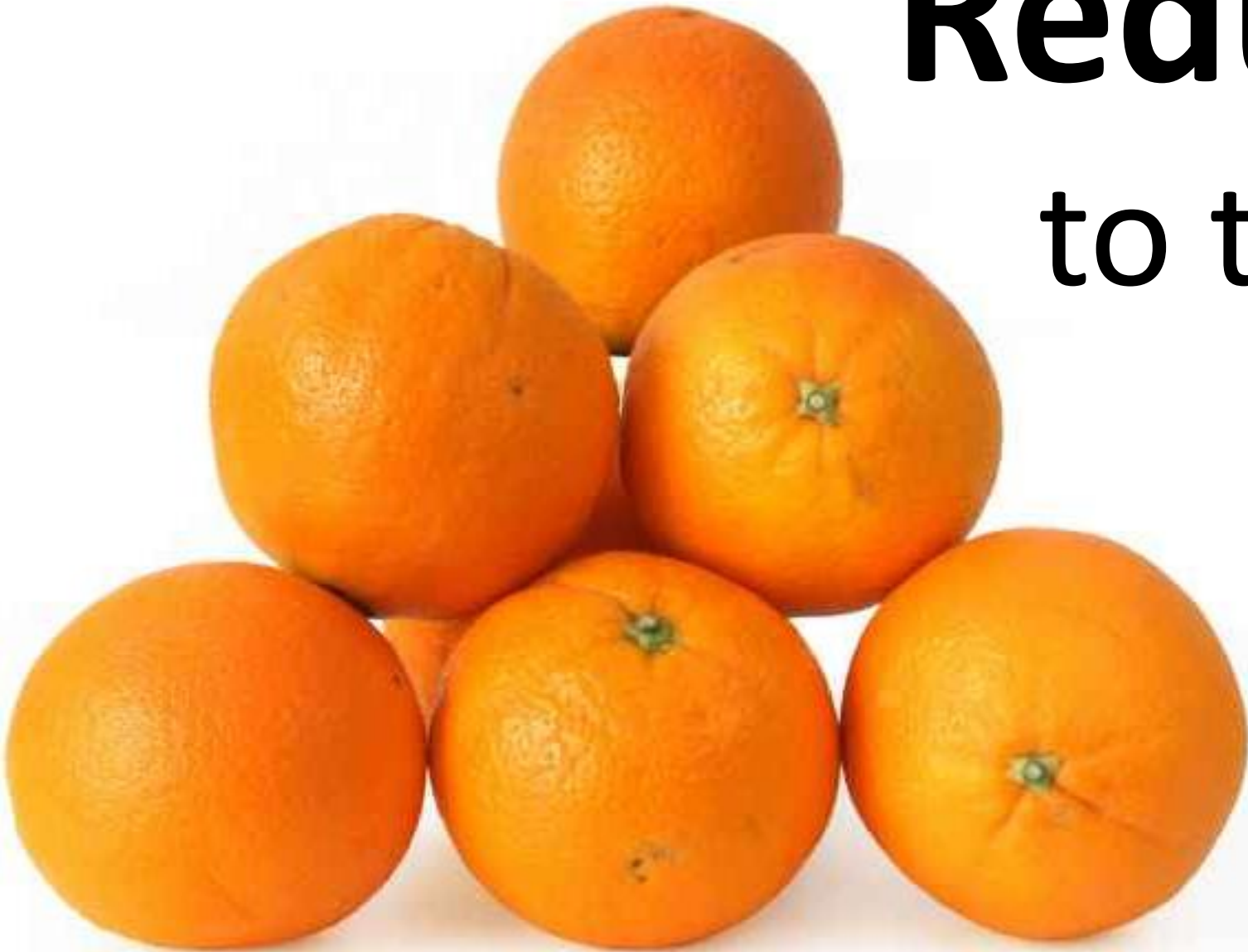


Reduce

to the

Max



I apologize
in advance

for offending any

-Manual Therapist

-Osteopath

-Sports physician

-Athletic Trainer

-High Performance Sports Physical Therapist

-MDT Clinician

-Radiologist

It's never
meant to
cause that

English is a
second language
for me

I love you

all



MDT and the ATHLETE

Germany shocked – European Soccer Championship without Rüdiger

7.6.2016





**Gymnastics – after long standing shoulder problems
Hambüchen makes it to the Olympics**



reusch
reusch



Why Eike Immel had to enter ‚Jungle Camp‘

Former national Goalkeeper Eike Immel is bankrupt. The European Champion of 1980 has to enter the ‚jungle‘ to afford **hip surgery.**

Prevalence?



2 million

sports injuries per year


1,9 billion \$

cost per year

100 million

1.-3. division



The image features a warm, orange-toned sunset background. In the foreground, the silhouettes of five runners are visible, moving from left to right. The runners are of various ages and are captured in mid-stride. A semi-transparent white horizontal band is overlaid across the middle of the image, containing the text '20 - 79 %' in a large, bold, black sans-serif font.

20 - 79 %

Taunton 2003, van der Worp 2015, van Gent 2007



Sport is a method to
exchange illness by
trauma!

Is exercise the best medicine? Studies show big benefit

Nanci Hellmich, USA TODAY 2:35 p.m. EDT October 2, 2013

Physical activity may be as effective as medications for preventing early death in some people who've had heart attacks or strokes, a new study suggests.



Exercise may be as effective as medication in preventing early death in people who've had heart attacks or strokes, a new study suggests.

"Doctors should give their patients advice about the lifesaving benefits of exercise, and when possible they should refer patients to rehabilitation programs with exercise programs," says the study's lead author, Huseyin Naci, a fellow at [Harvard Medical](#)



f 6641

t

in 27

e

1

Ekelund 2016, Lee 2014, Murakami 2015, Naci 2013

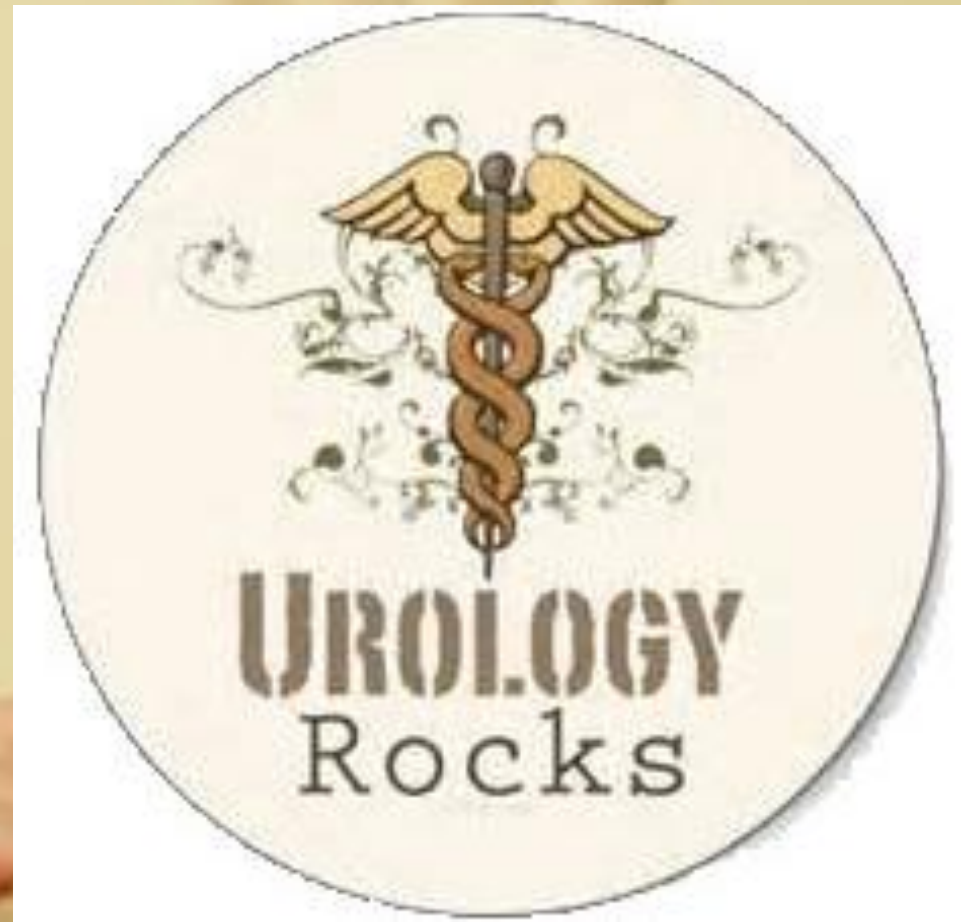
0,88%

1,9 billion \$

Experts

needed



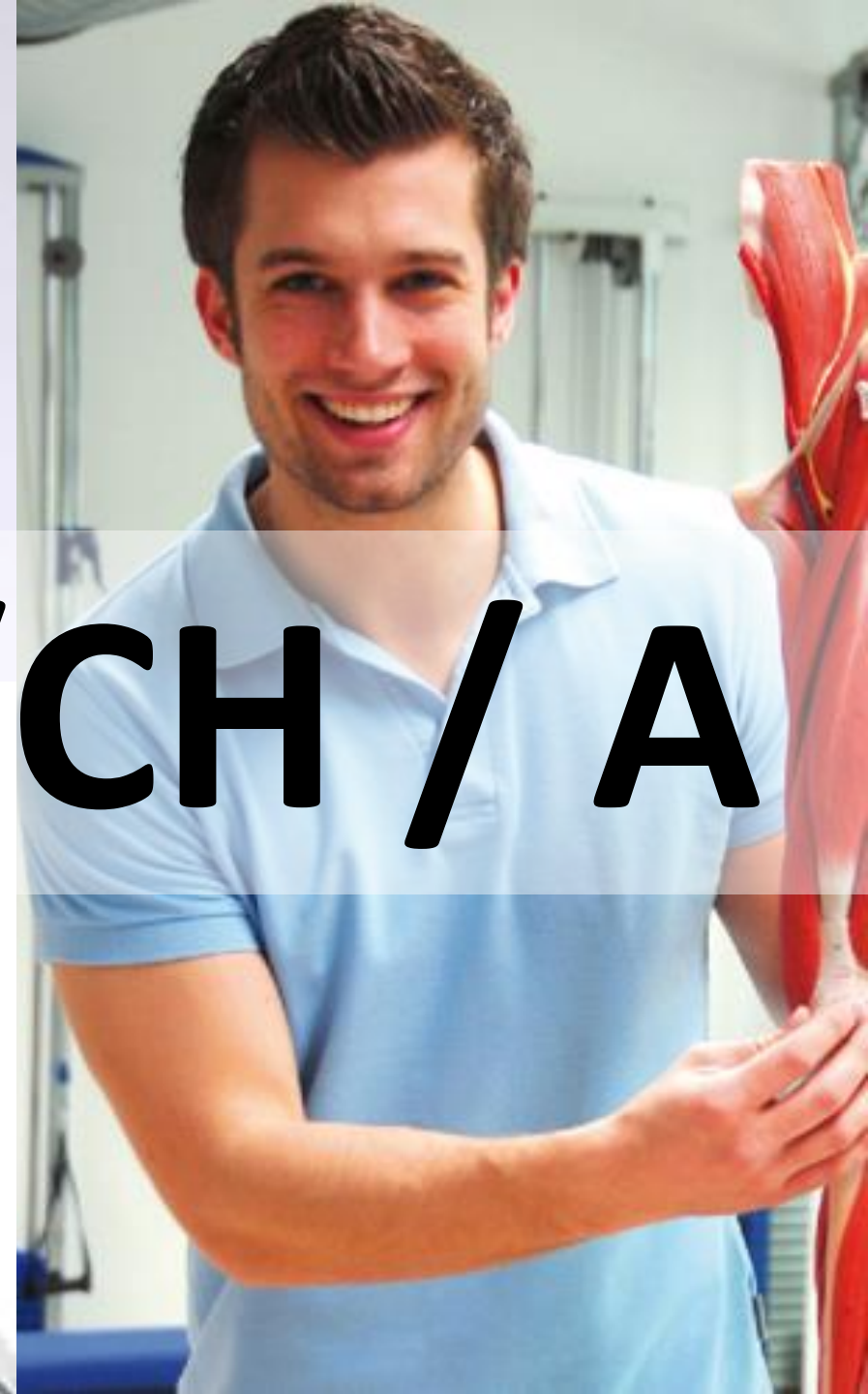






female entrepreneurs ACL rupture





15.000 in D / CH / A

meniscus

rotator cuff

**chondro-
pathy**

strain

**inflamm-
ation**

ligament

**tendino-
pathy**

**impinge-
ment**

fascia

AKP

FAI

instability

**weak
groin**

**stress
fracture**

bursa



meniscus



rotator cuff



**chondro-
pathy**



strain



**inflamm-
ation**



ligament



**tendino-
pathy**



**impinge-
ment**



fascia



AKP



FAI



instability



**weak
groin**



**stress
fracture**



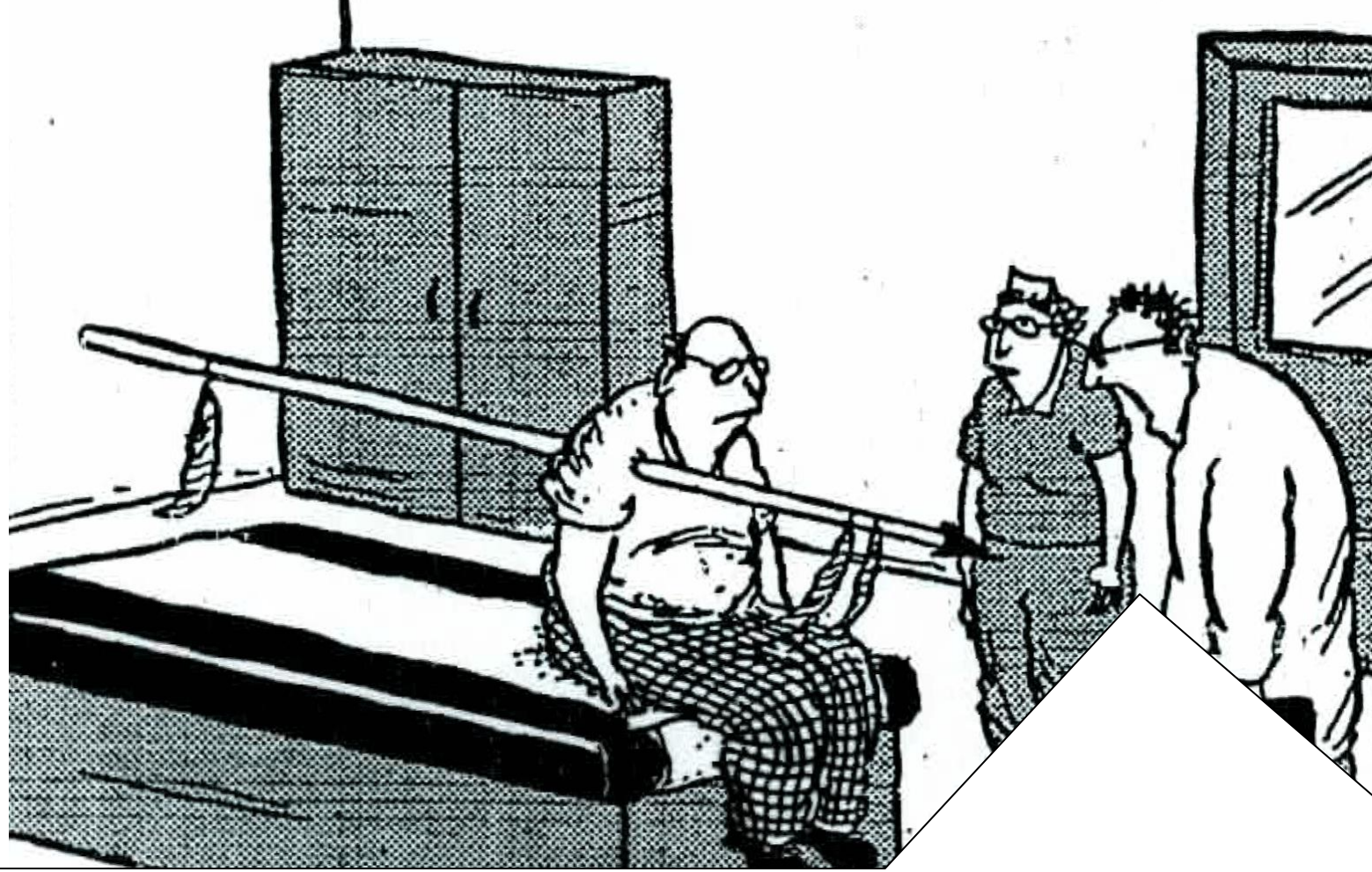
bursa





13





We still have to run some further testing but your initial bloodwork indicates that a huge spear is sticking in your right shoulder

OTHER

Derangement

Innenband

Vorderer
Kniesch-
merz

EAI

Instab

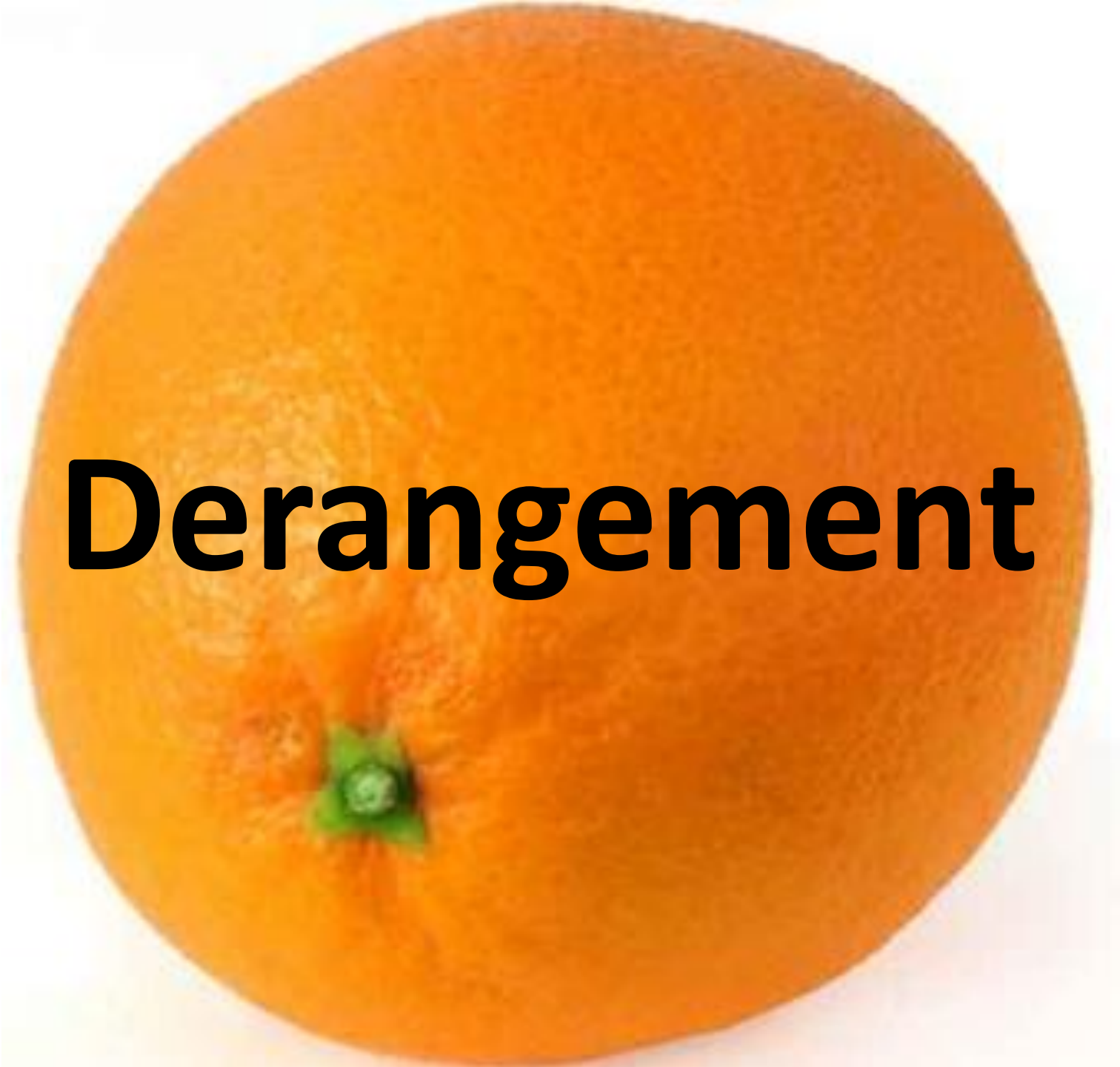
dungs-

Dysf

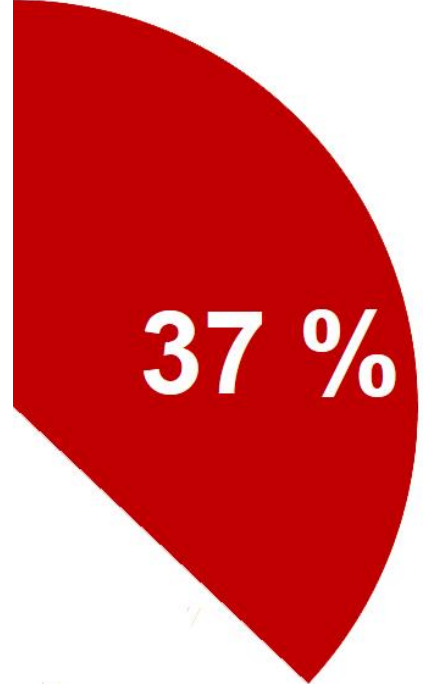
Articular Dysfunction

Contractile Dysfunction

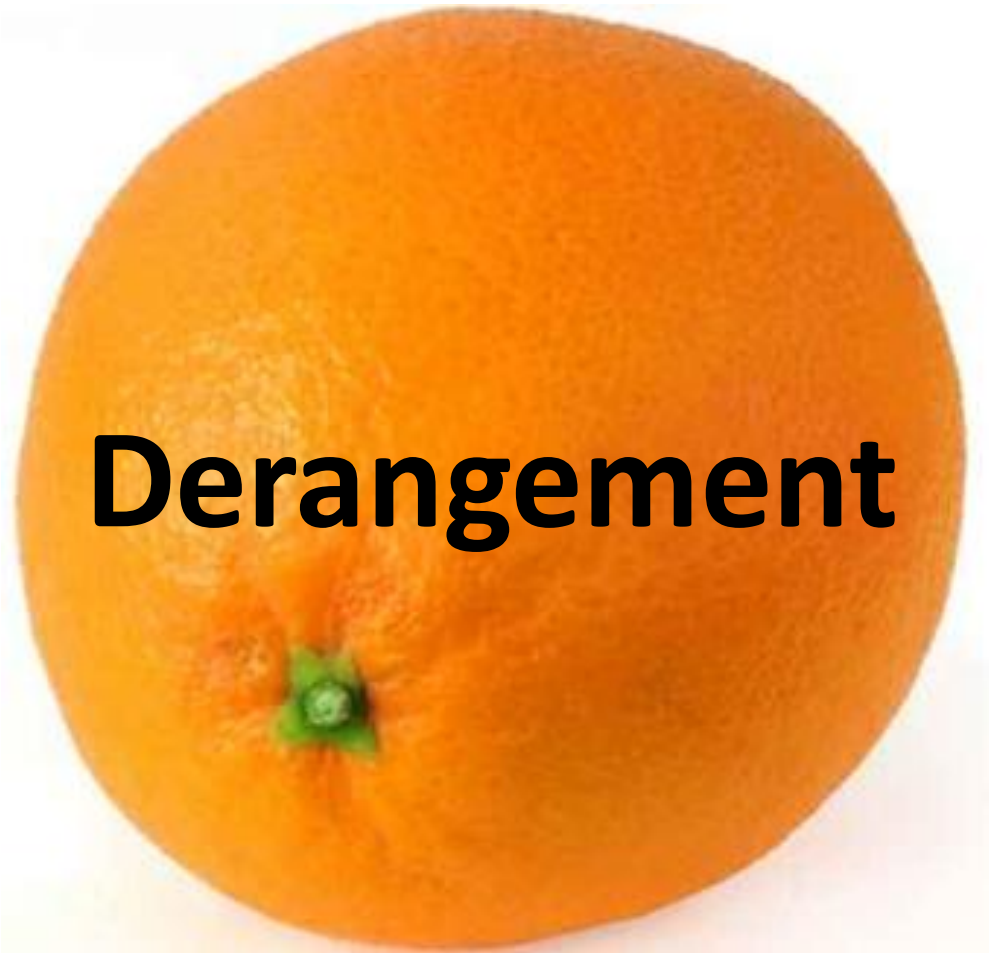
May 2012

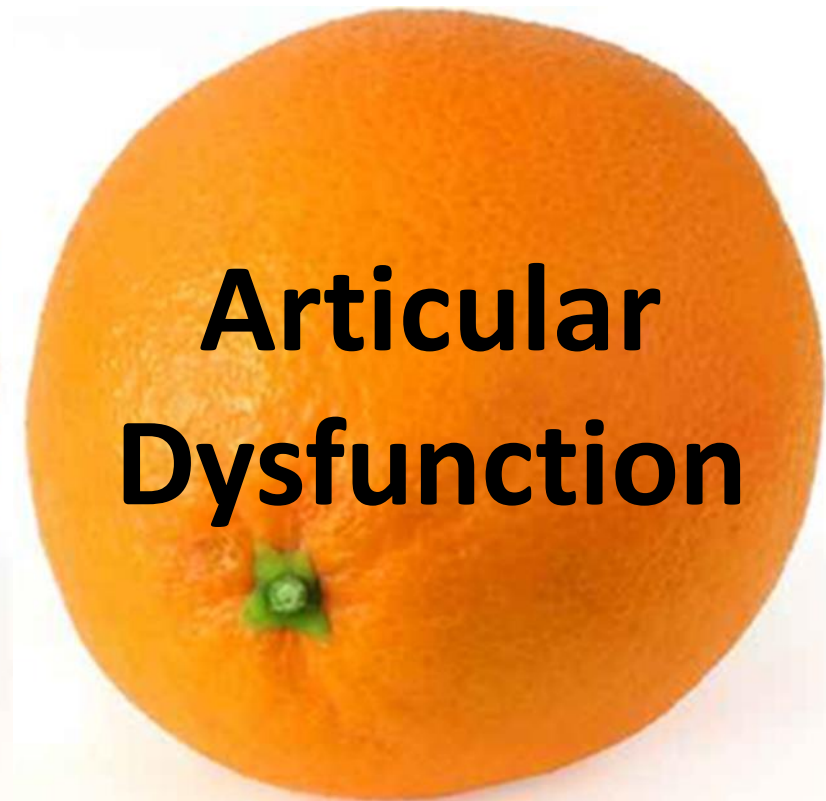
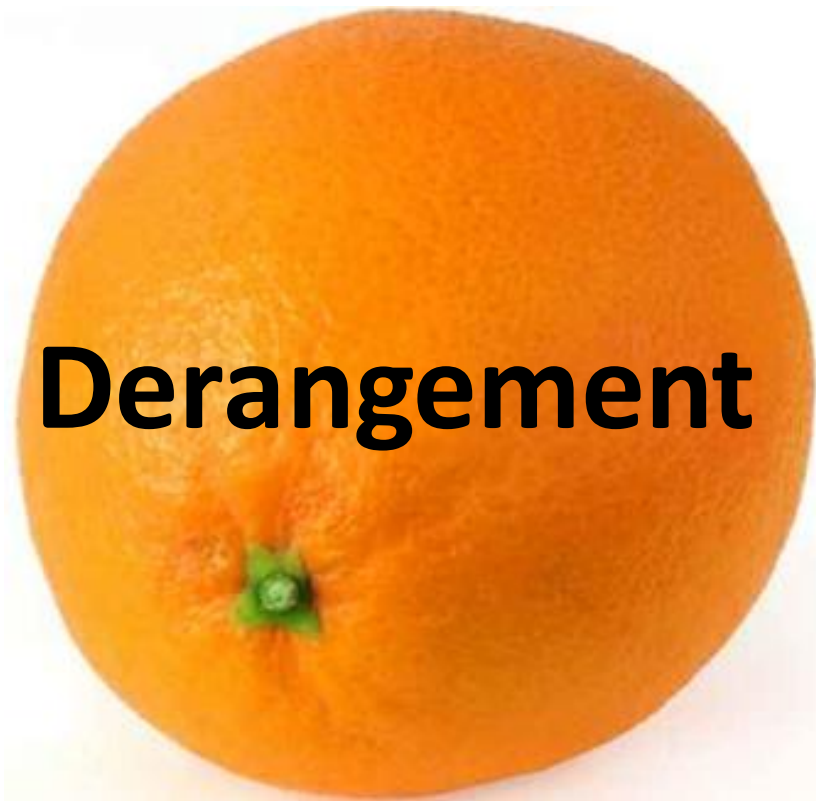


Derangement

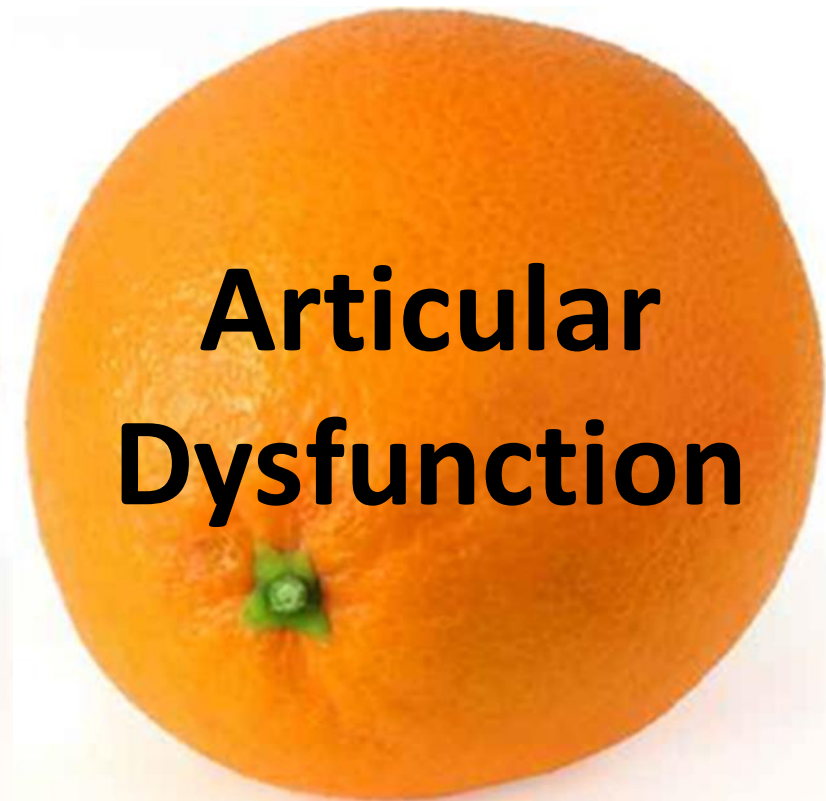
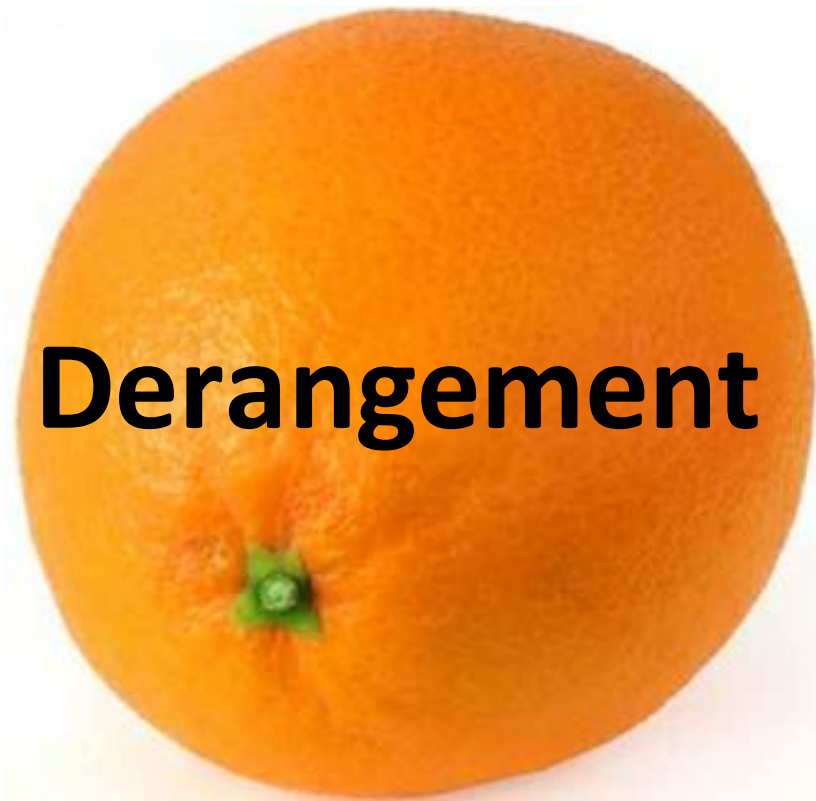


37 %









The image consists of three identical oranges arranged horizontally. Each orange has a small green stem at the bottom. The text is overlaid on each orange in a bold, black, sans-serif font. The first orange on the left is labeled 'Derangement', the middle one 'Contractile Dysfunction', and the one on the right 'OTHER'.

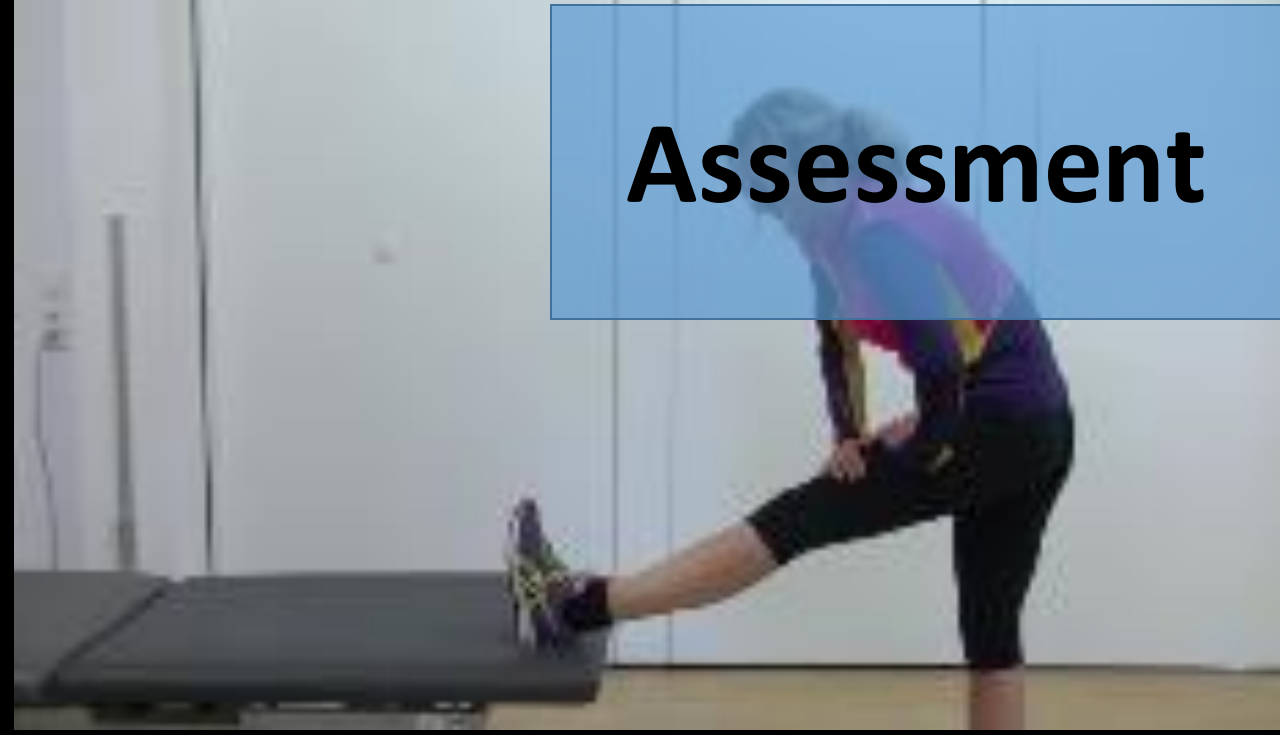
Derangement

**Contractile
Dysfunction**

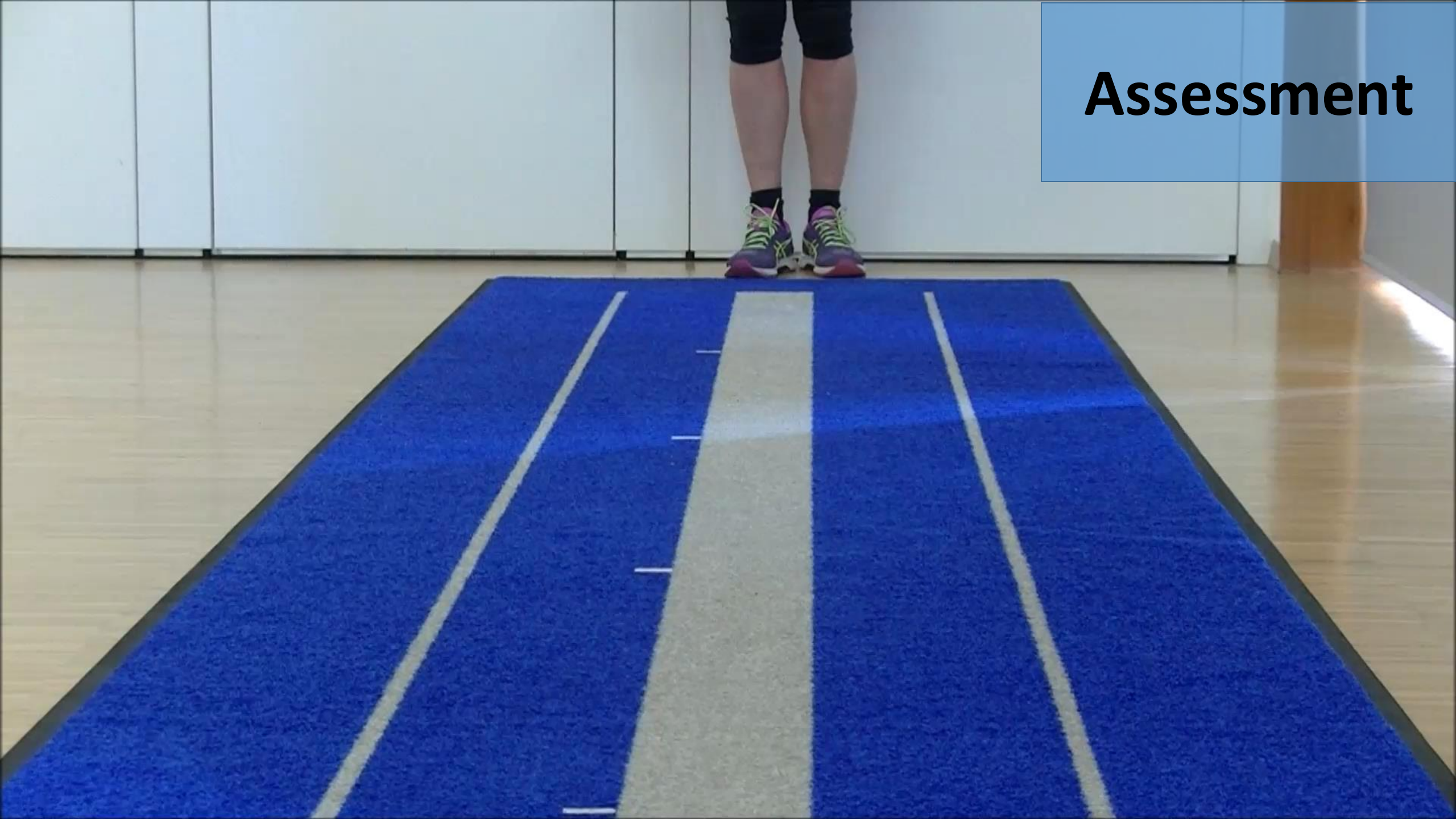
OTHER

Assessment





Assessment



Assessment

That sucks!





Assessment

Treatment

Assessment

Treatment

BETTER!



that's it!

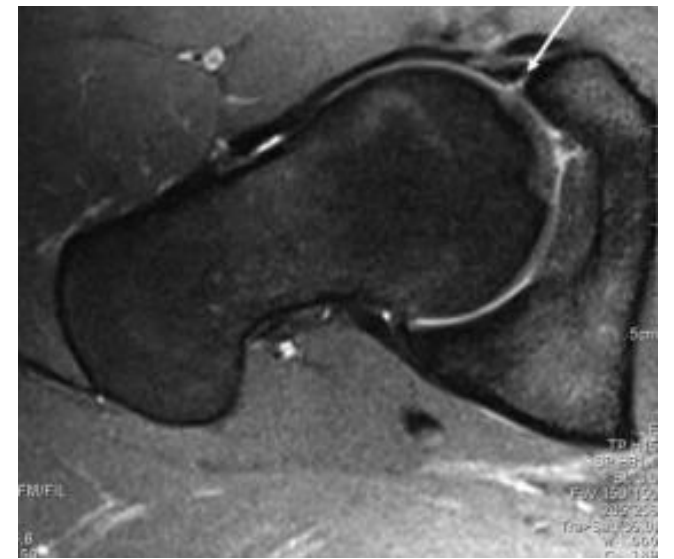
really?

Assessment

Treatment







Beals 2016, Del Grande 2016, Register 2012, Silvis 2011

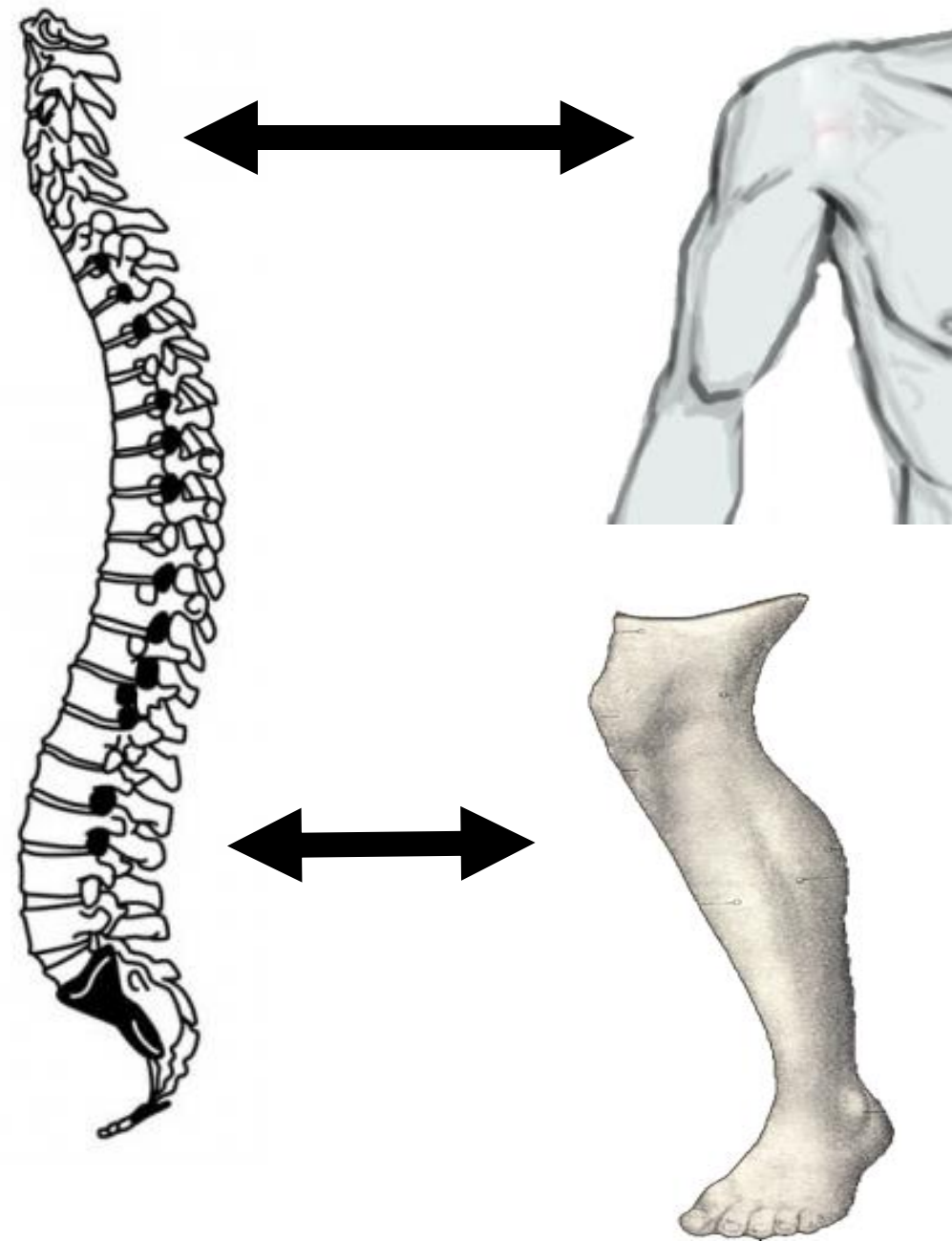
73%

69% labral tears

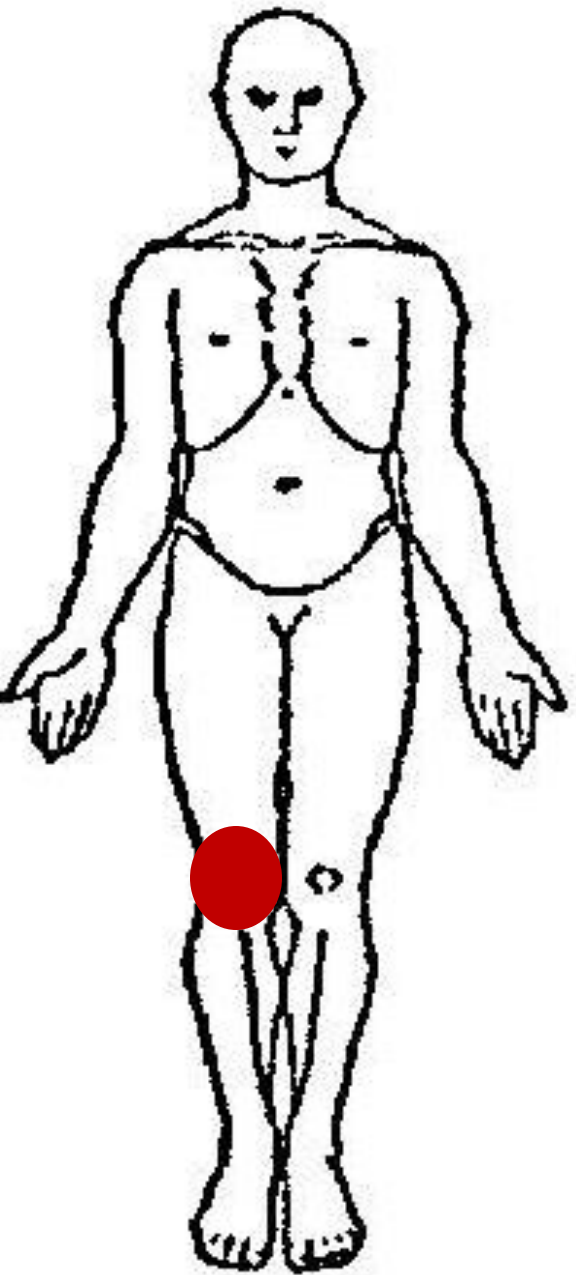



Swimming
NEW ZEALAND

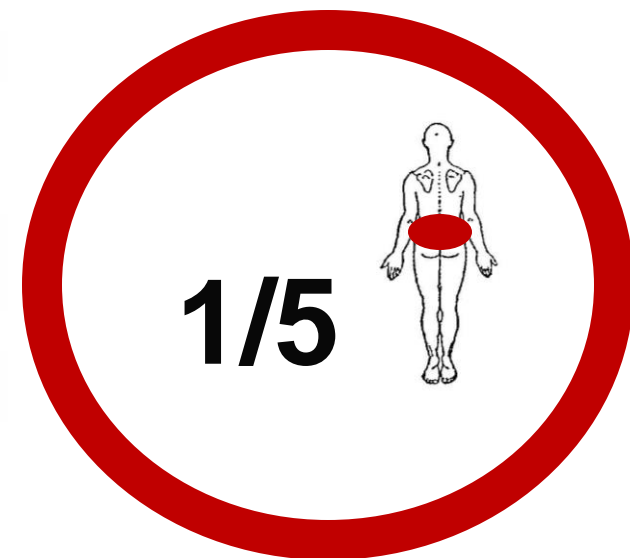
Lynch 2013



Menon 2012, Hirokado 2015



57 %



Hirokado 2015





Derangement



6 months later





Assessment

**That's how I know it.
Exactly the same**

Assessment

Treatment



Assessment

Treatment



Assessment





Assessment



Assessment





Assessment

Treatment

Prevention



Assessment

Treatment

Prevention

Khayambashi 2012/2015, Distefano 2009

Assessment

Treatment

Prevention









Sled 2010

Assessment

Self -

Treatment

Prevention

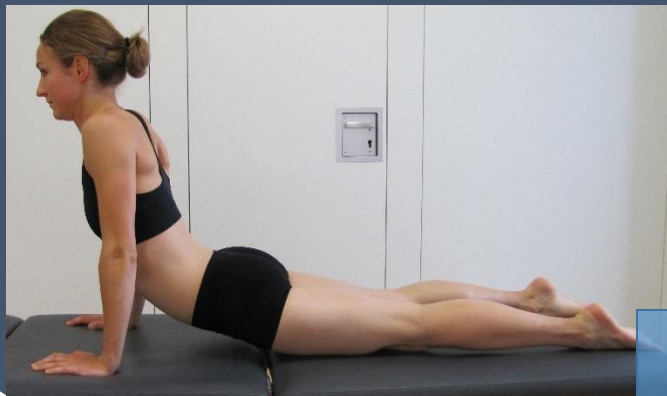
Assessment

Treatment

Function

Prevention

McKenzie



Sports Physical Therapy



Function



SICHER ZURÜCK
ZUM SPORT



Return to Sport



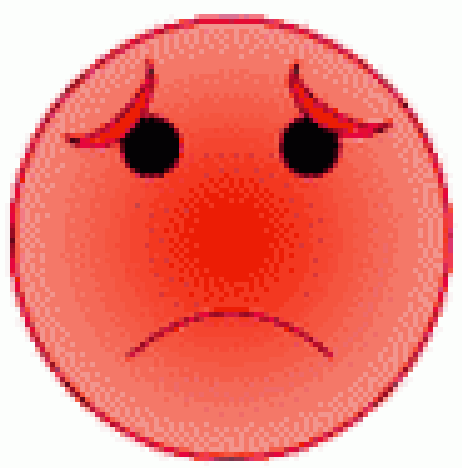
RETURN TO ACTIVITY

STAR WARS

RETURN OF THE JEDI

THINGS TO DO AND MAKE™





Assessment

Treatment

Function



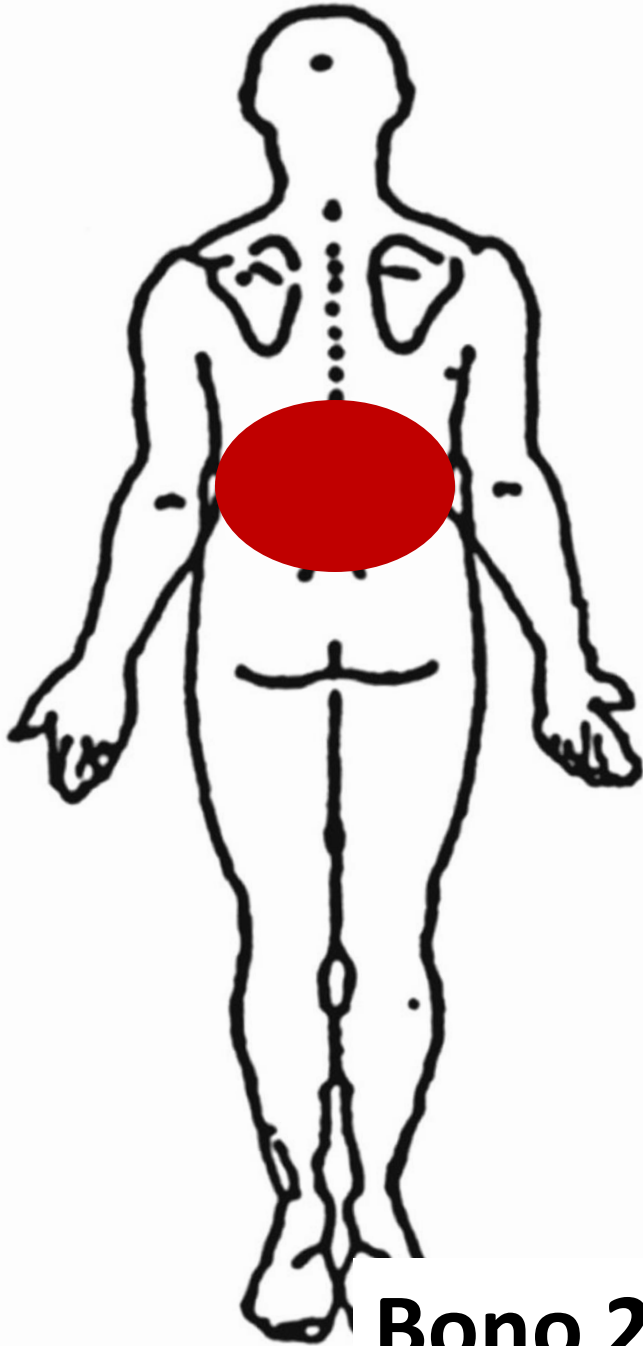
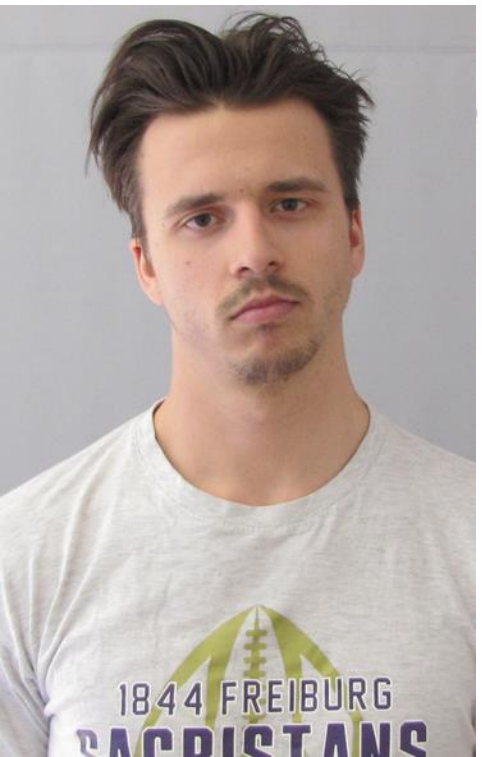
Assessment

Treatment

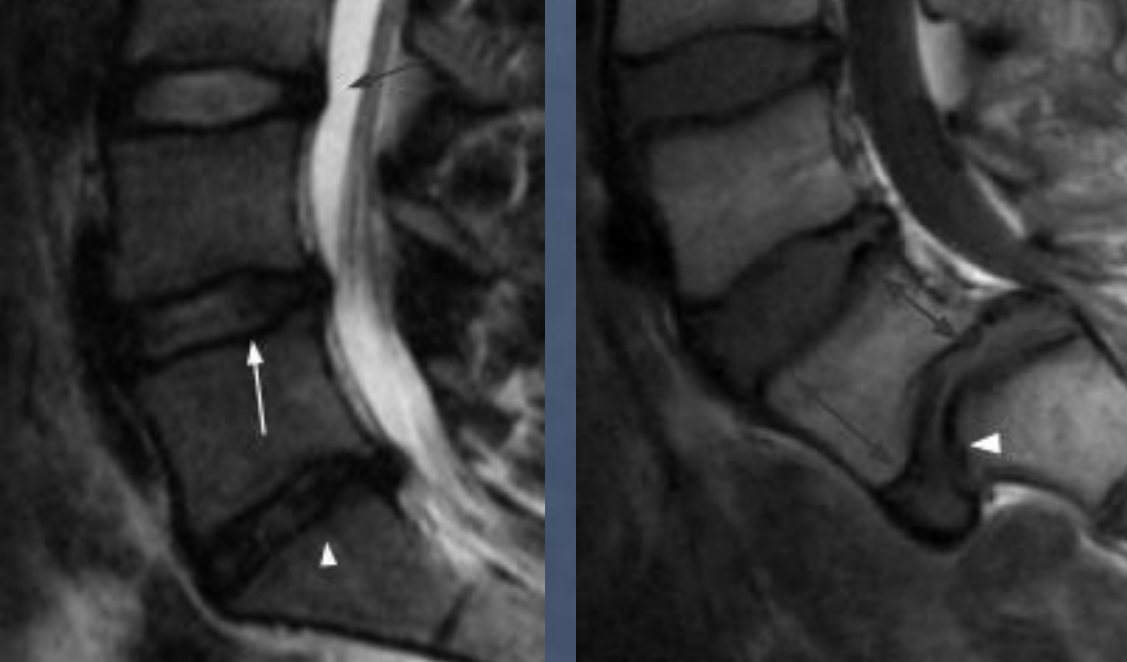
Function

Domenech 2009, Ross 2010

Assessment



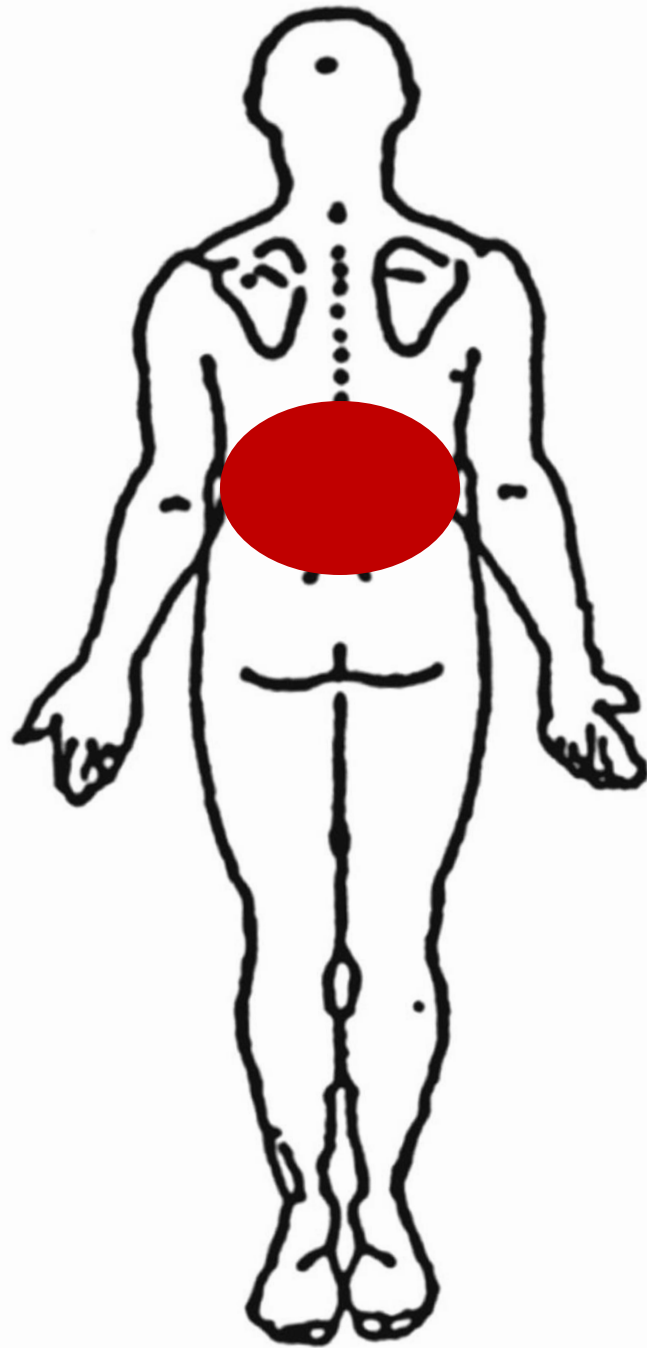
Bono 2004, Daniels 2011, Mortazavi 2015



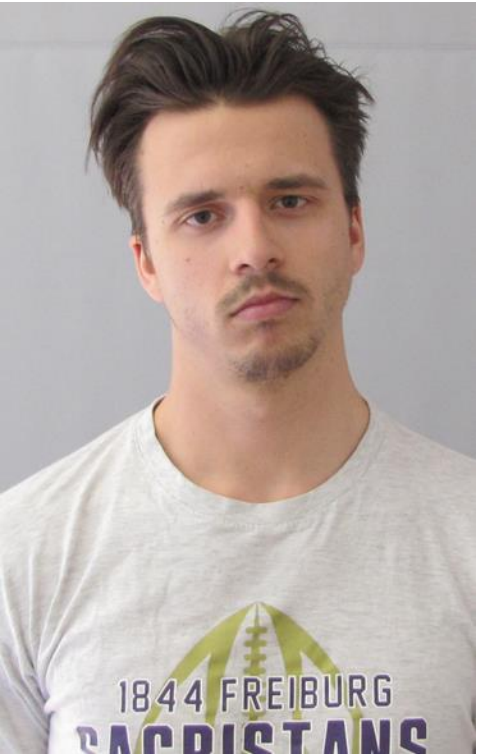
85 % abnormal findings

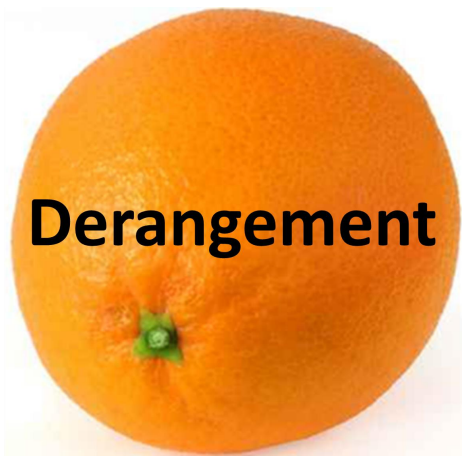
Alyas 2007

Assessment



Derangement





Derangement



Assessment

Treatment





Assessment

Treatment

Function ???



SORRY

NO RESULTS

FOUND

Level I

- Balance Squat
- Y-Balance Test

Level II

- Balance Front Hop
- Front Hop Test

Level III

- Balance Side Hop
- Side Hop Test

Level IV

- 90° Balance Hop
- Square Hop Test



RETURN TO ACTIVITY
ALGORITHMUS



Keller 2016



McKenzie



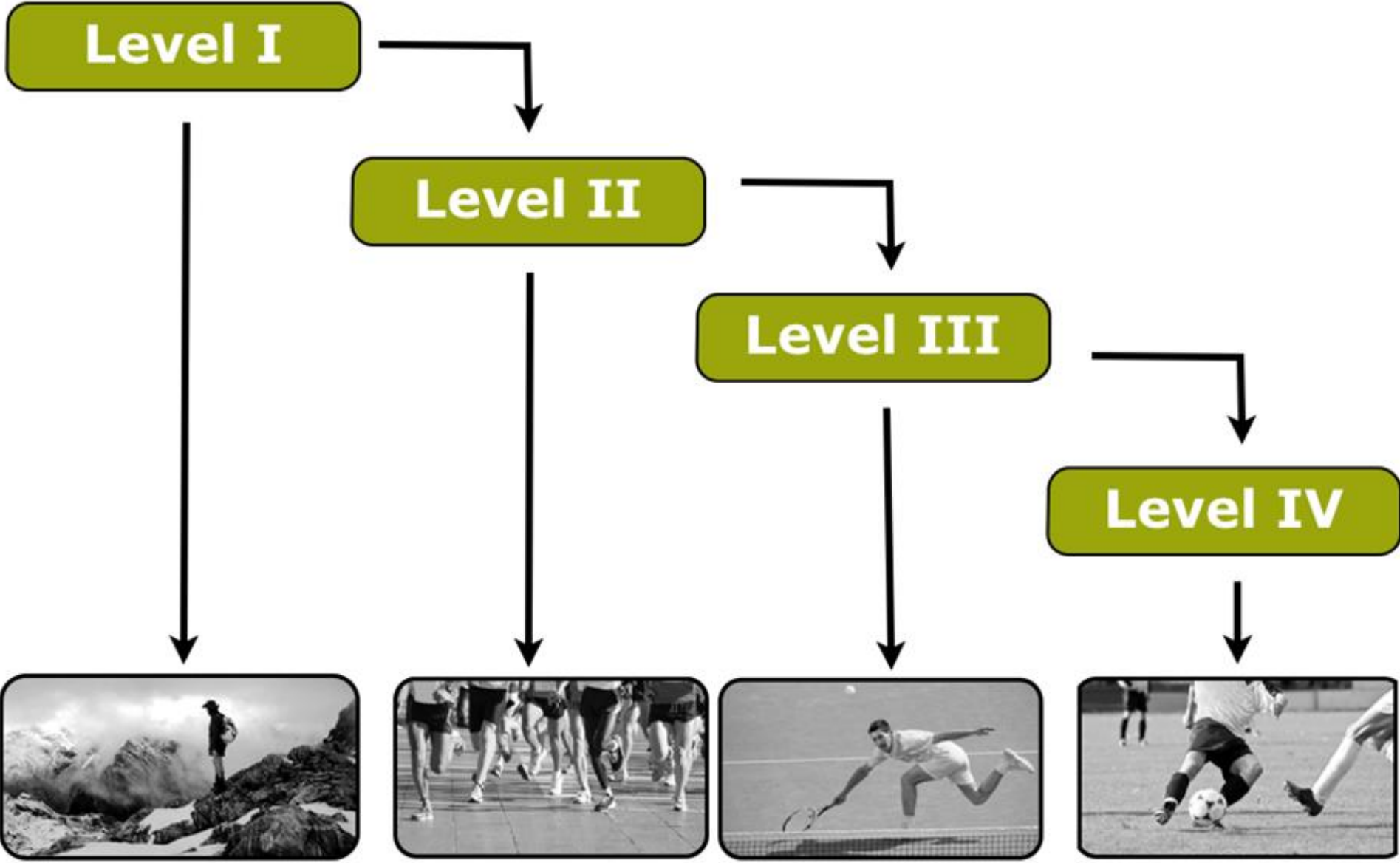
Sports Physical Therapy

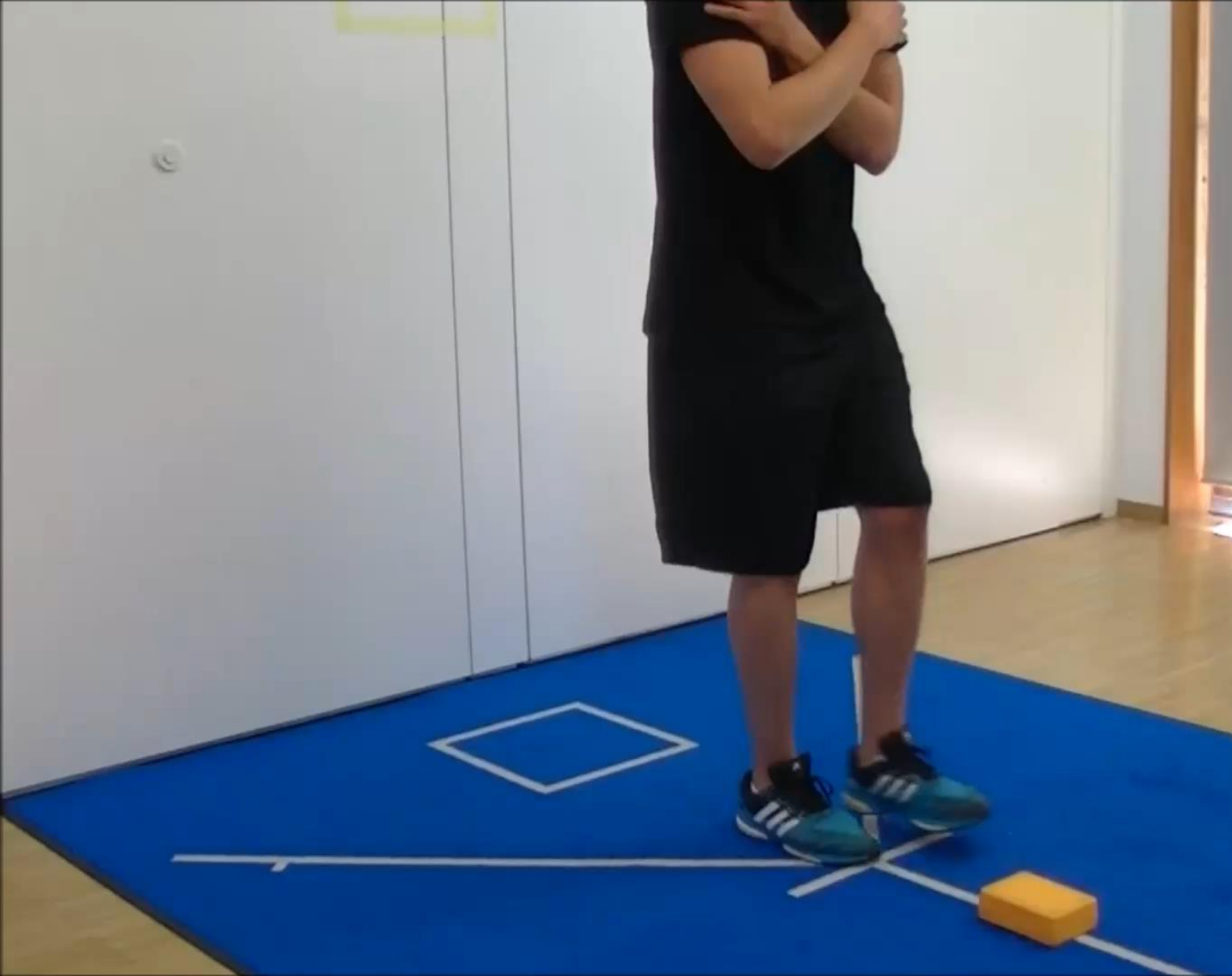


McKenzie

Sports Physical Therapy

Return to Activity Algorithm – Lumbar Spine

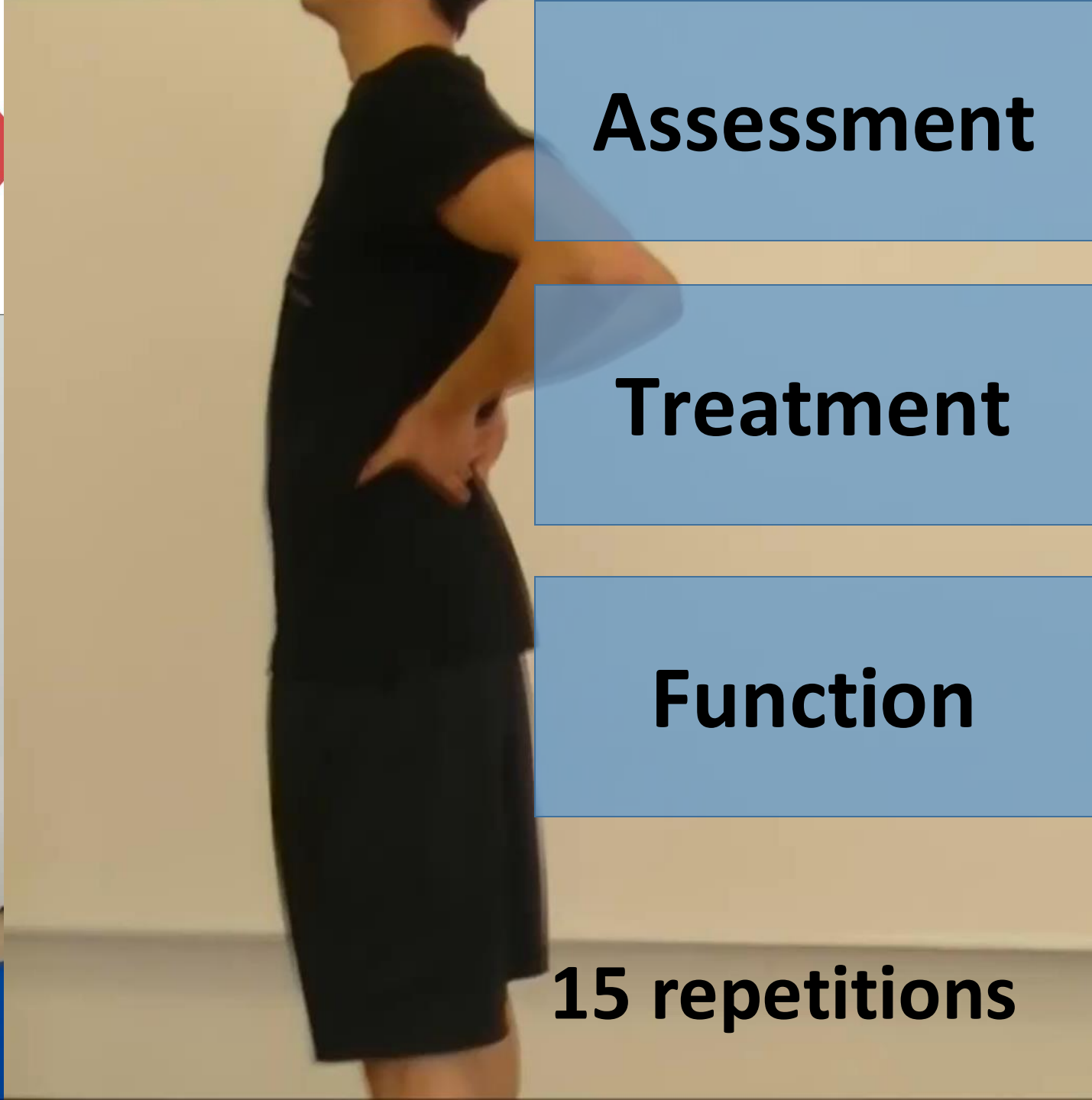
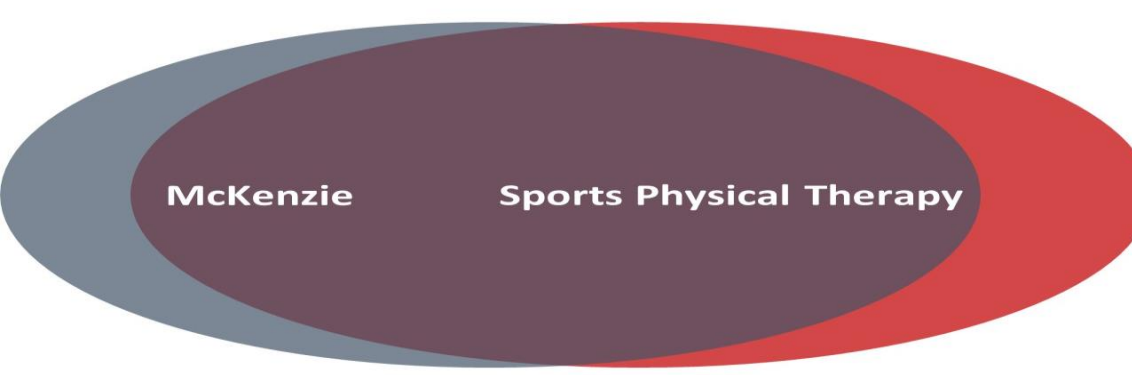




Assessment

Treatment

Function





MDT and the ATHLETE



Assessment

Treatment

Function

Prevention



MDT and the ATHLETE MDT and the ATHLETE

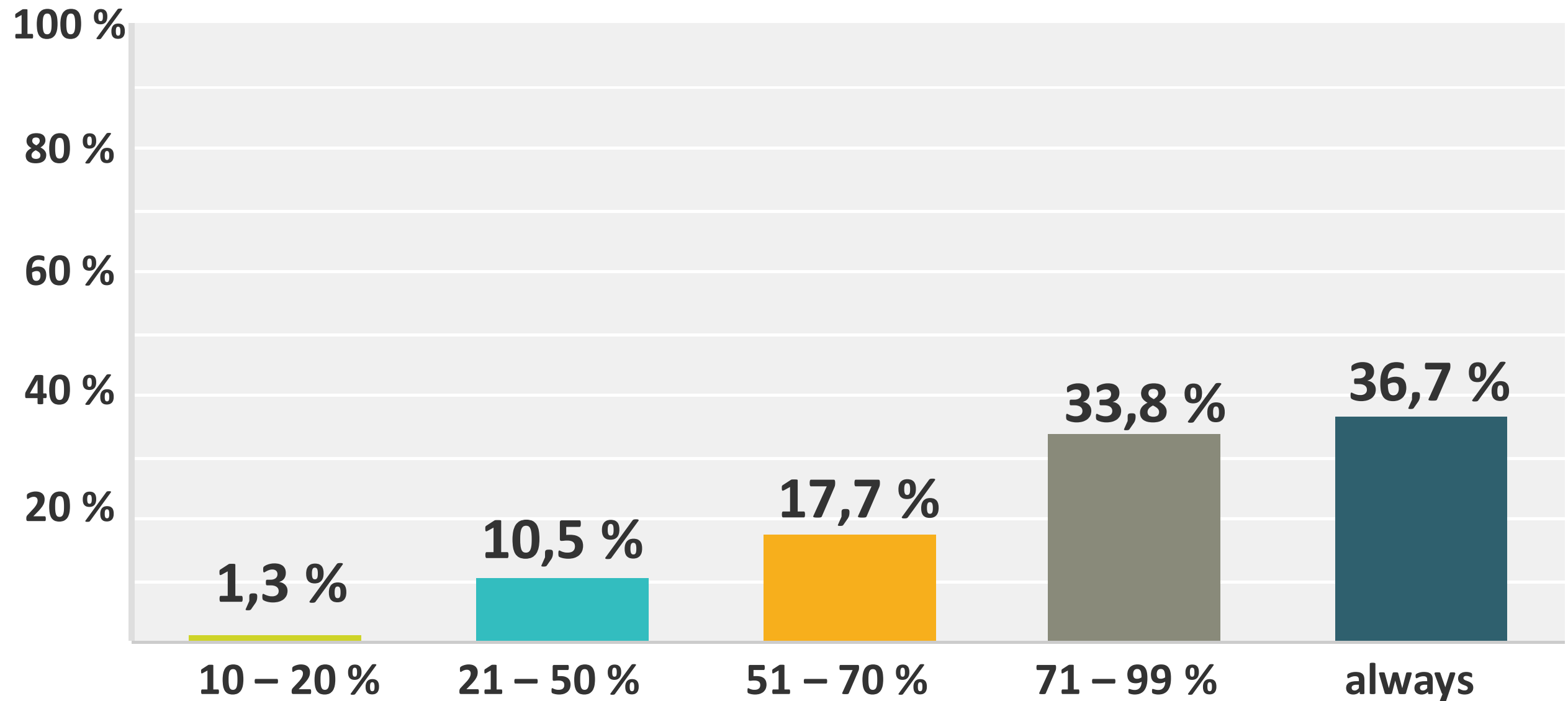
MDT and the ATHLETE MDT and the ATHLETE

311 Cred/Dip MDTs

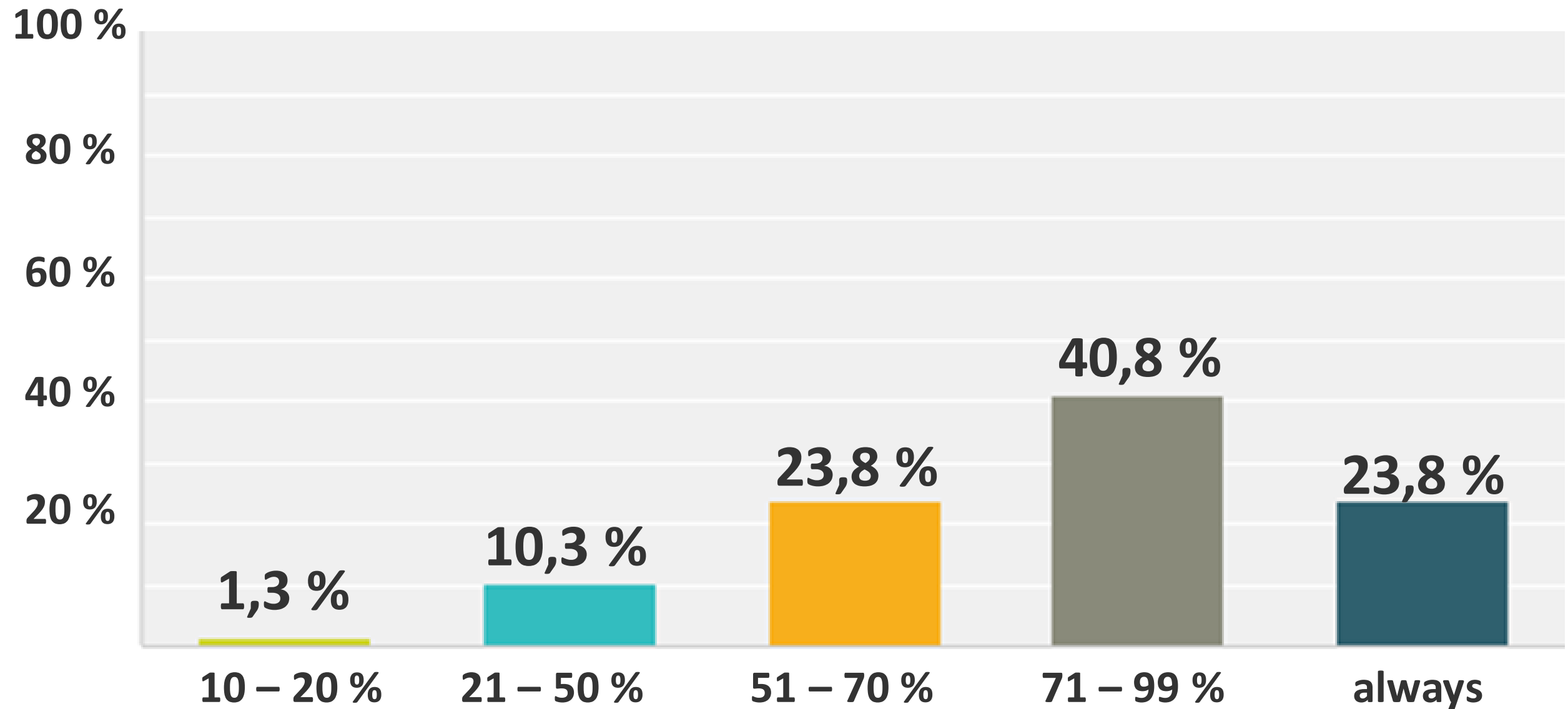
MDT and the ATHLETE

Summer 2015

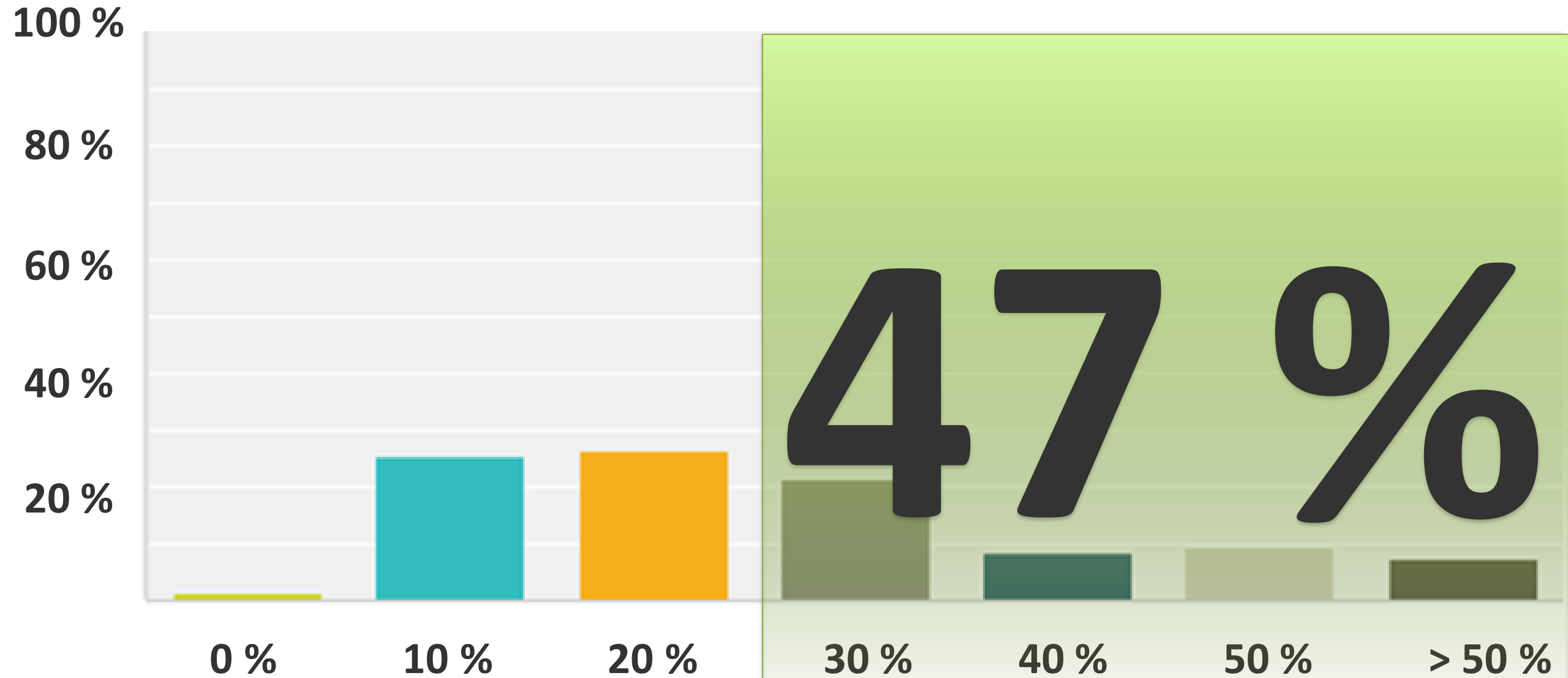
MDT ASSESSMENT



MDT TREATMENT

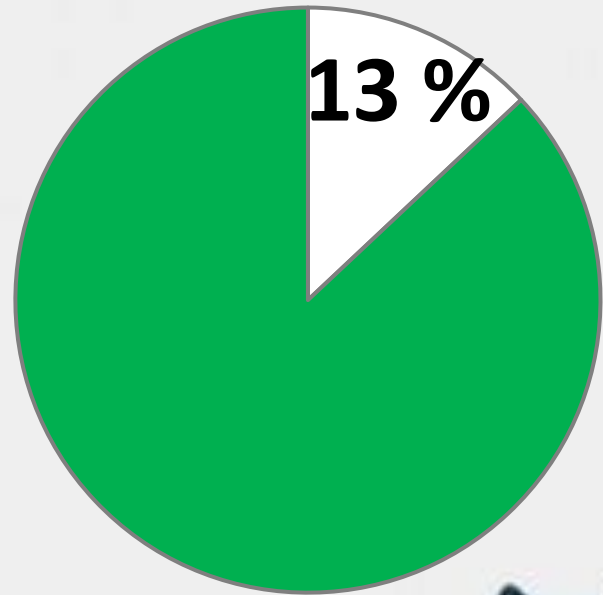


Patients with sports related Problems



High Performance

Athletes

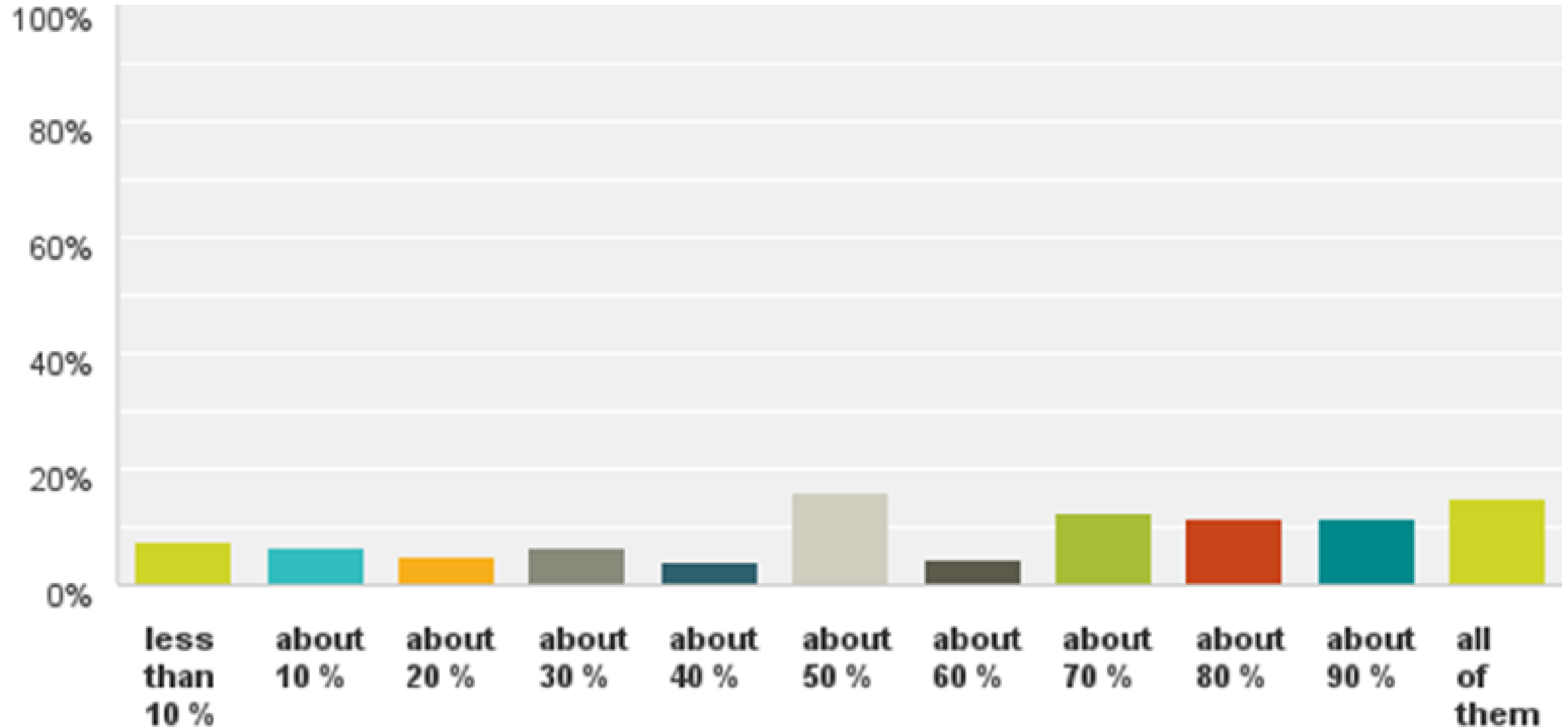


13 %

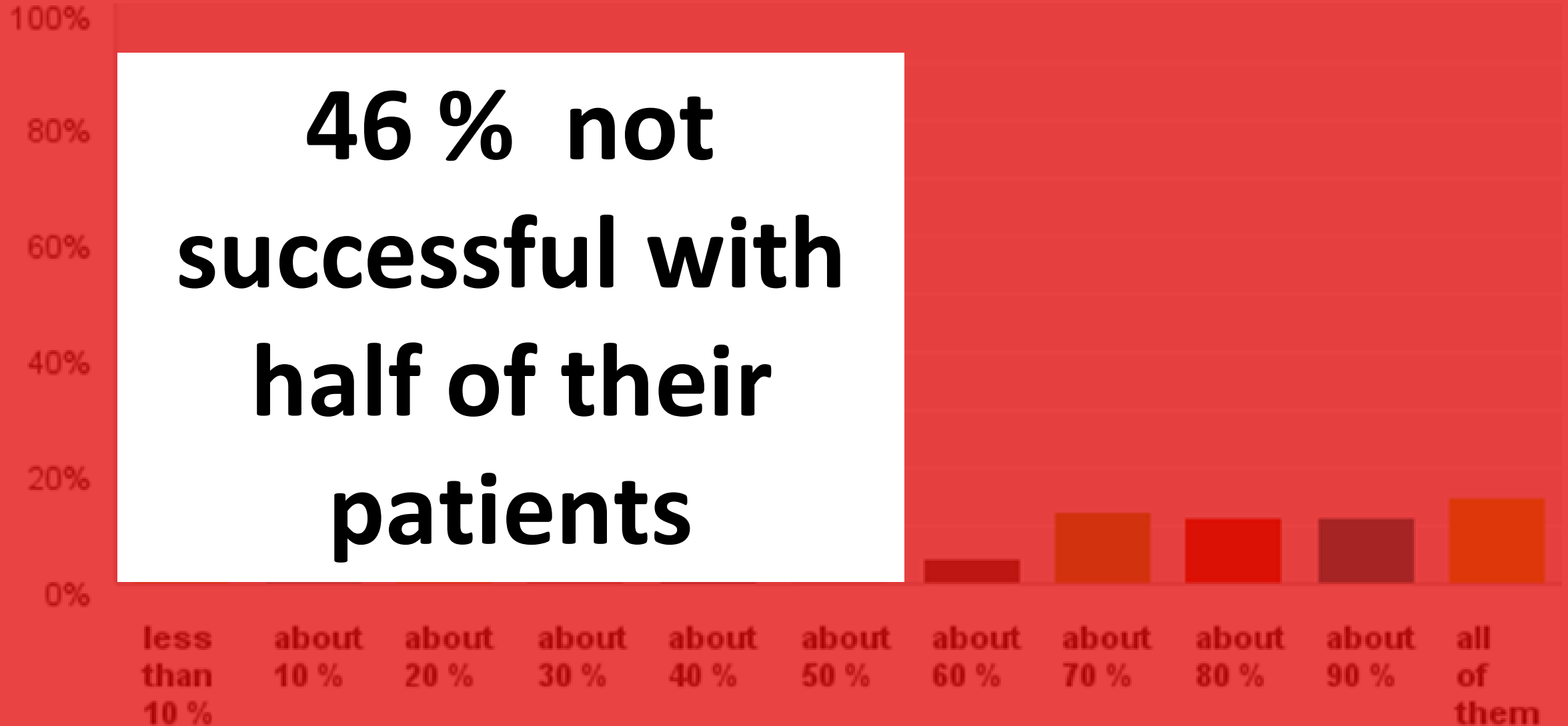
mainly



How many athletes can you actually help with MDT?



How many athletes can you actually help with MDT?



Likely more successful with MDT:

100

90

80

70

60

50

40

30

20

10

%

92 %

13 %



Likely more successful with

100

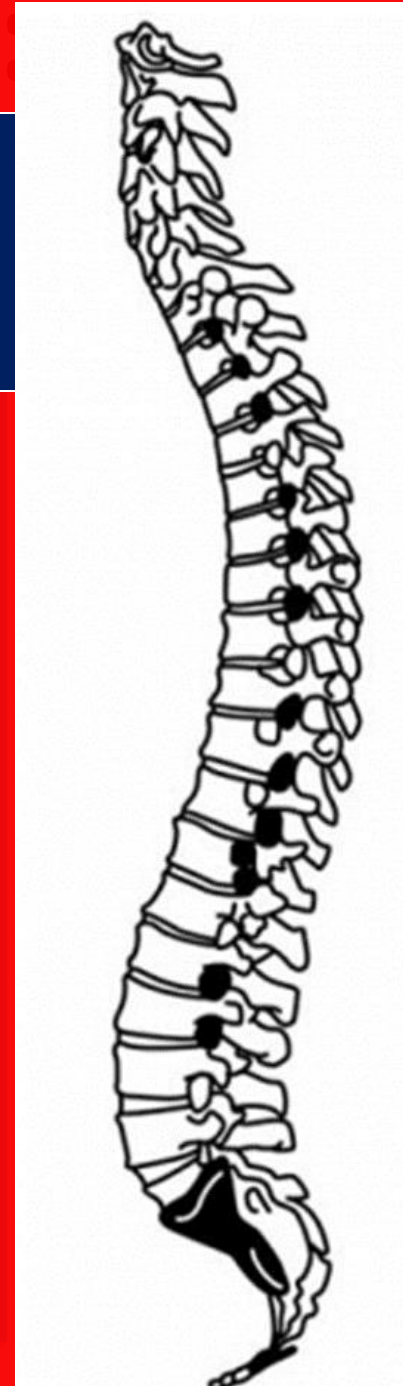
90

92 %



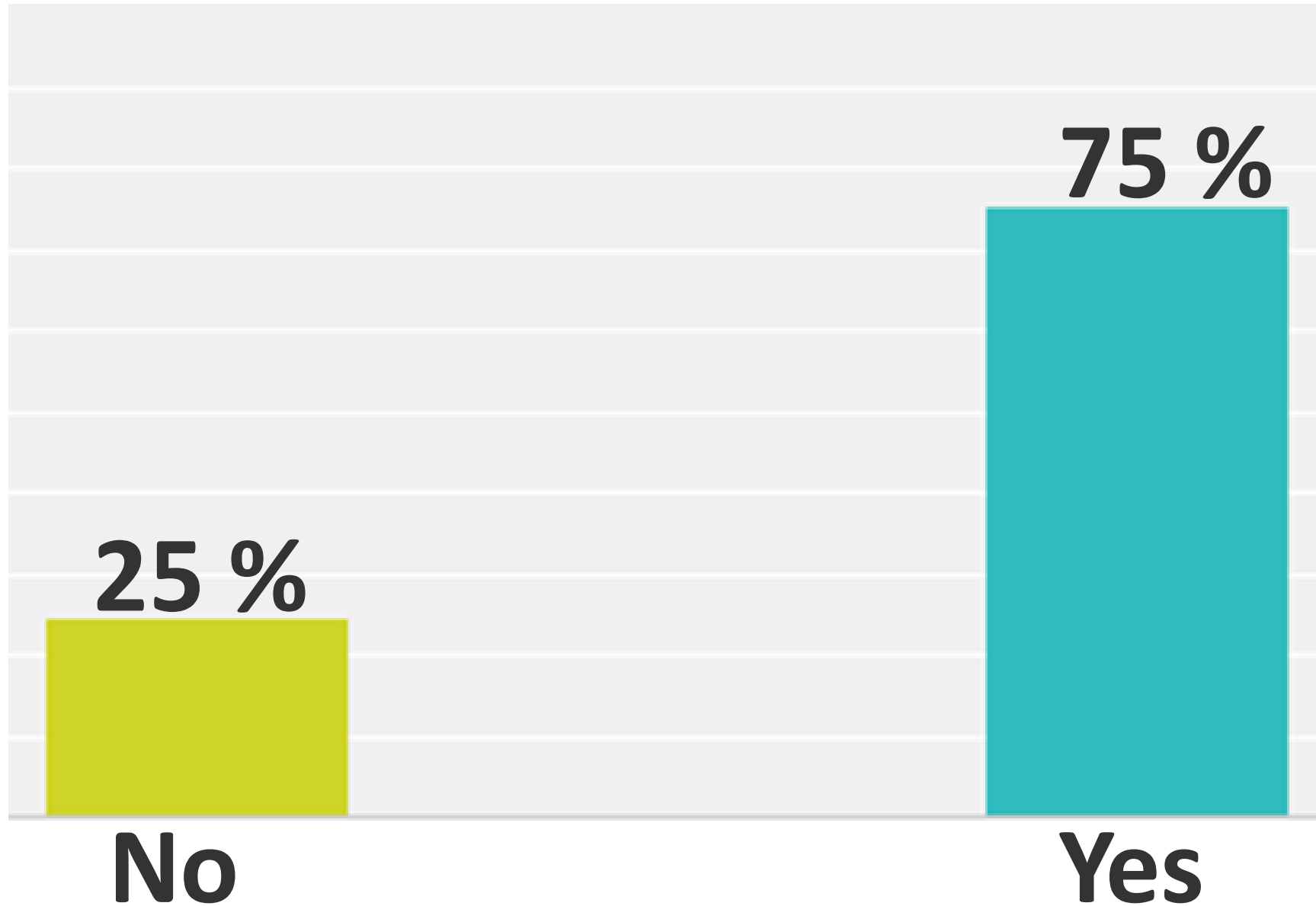
13 %

%

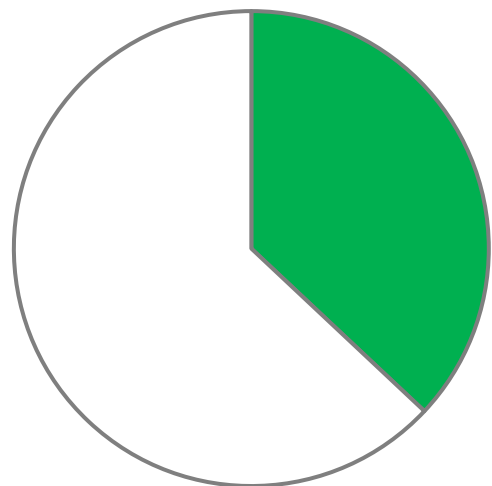


- Back
- Neck
- Knee
- Shoulder
- Ankle
- Hip
- Elbow
- Hand

Do you apply other methods / strategies / principles?

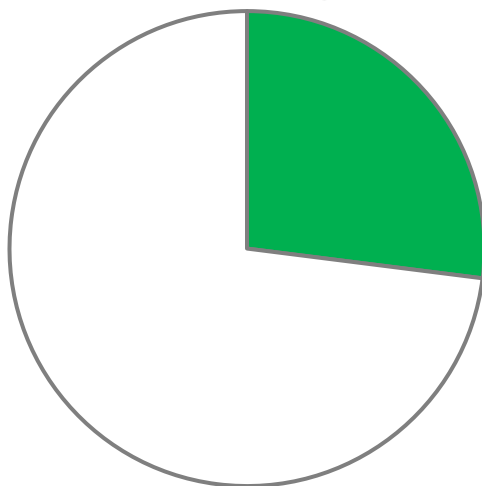


37 %



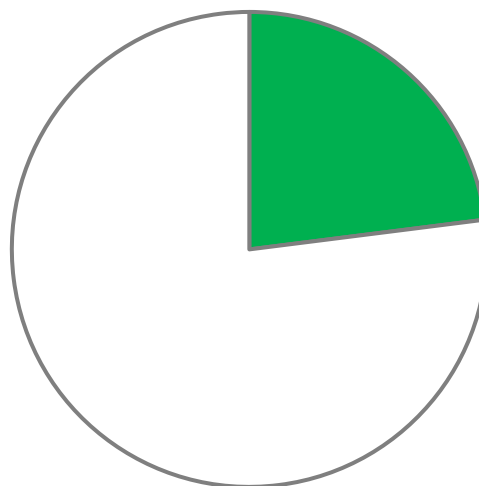
Strengthening

27 %



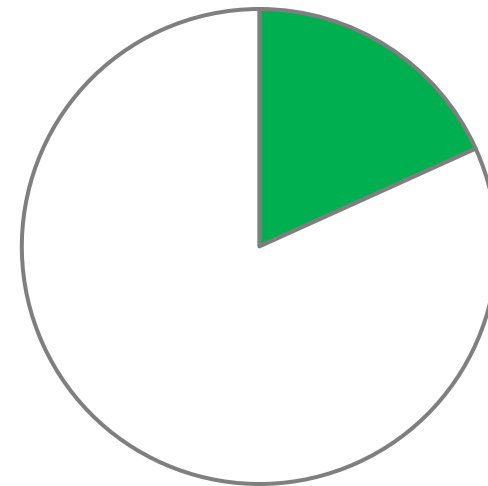
MT

28 %



Myofascial

18 %



Mulligan

18 %



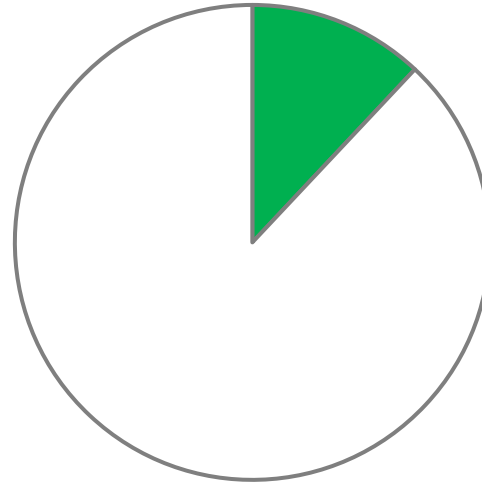
**Specific
Sports PT**

16 %



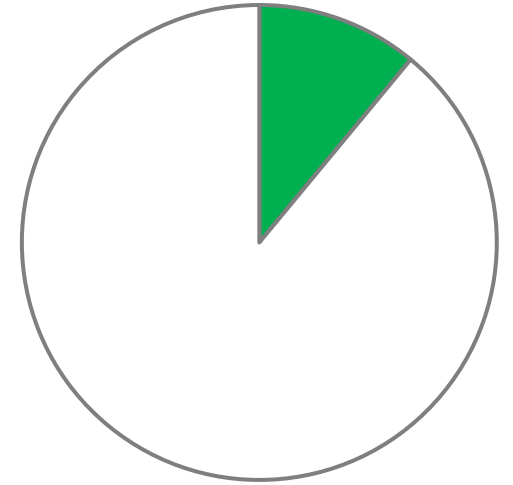
Modalities

12 %



**Functional
training**

11 %



Stretching

Why ?



2 %



**Patient
wants it**

5 %



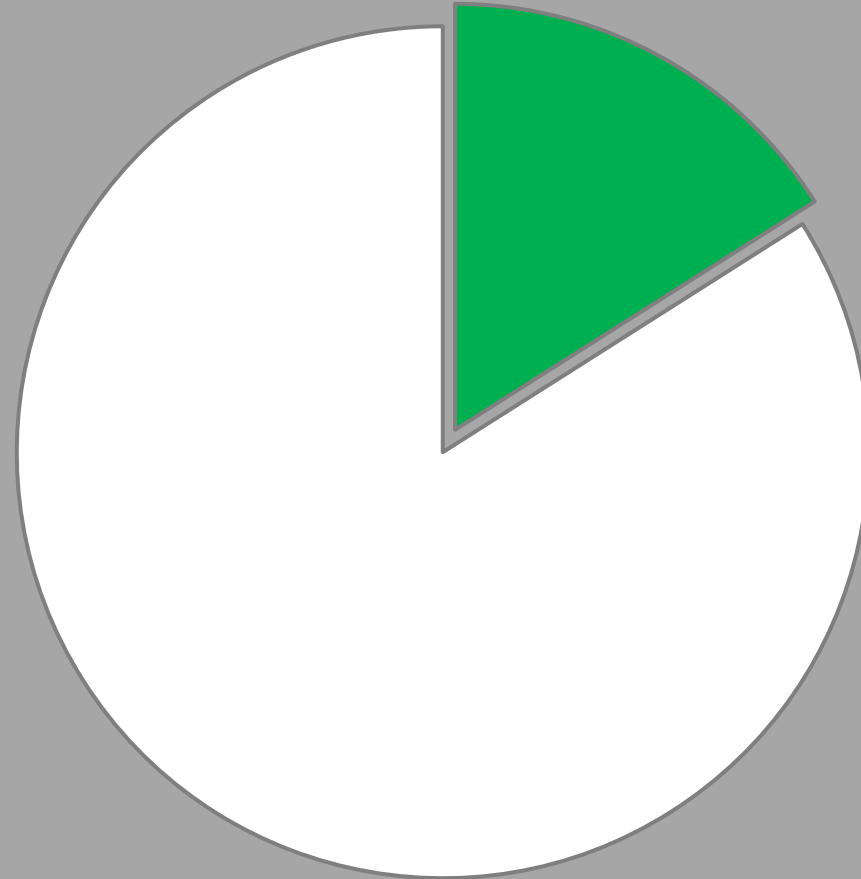
Prevention

6 %



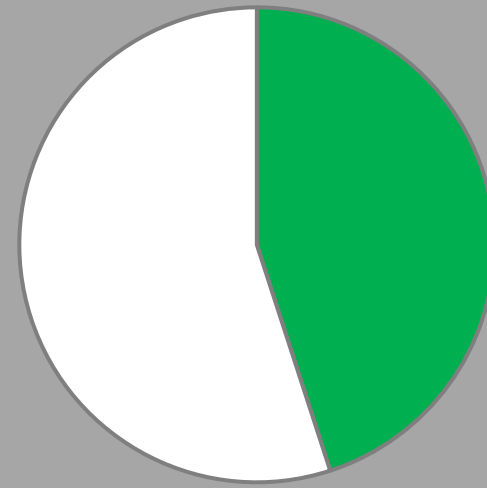
**MDT is not
working**

16 %



More than MDT

Specific aspects



45 %

‘...recovery of function’...

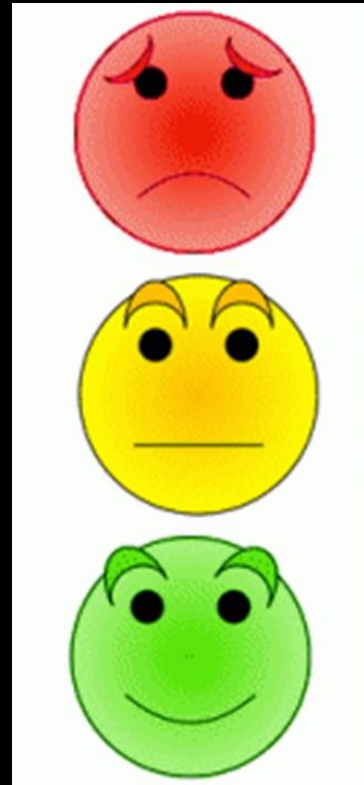
‘...address risk factors...’

‘...address sports specific issues...’

‘...support healing...’



give me a break



give me a break



LWS Anamnese

Datum:.....
 Name:.....
 Geburtsdatum:.....Alter:.....
 Überweisender Arzt:.....
 Beruf:.....
 Freizeit:.....
 Haltung / Belastungen:.....
 Funktionseinschränkung:.....
 VAS: (0 - 10):.....

Symptome der aktuellen Episode

Relevante Symptome:.....
 Dauer der jetzigen Episode:..... verbessernd / gleichbleibend / verschlechternd
 Auslösender Faktor:..... oder: kein Auslöser
 Anfangssymptome: LWS / Oberschenkel / Unterschenkel
 Konstante Sympt.: LWS/Oberschenkel/Unterschenkel Intermittierende Sympt.: LWS/Oberschenkel/Unterschenkel

Was provoziert/ verstärkt?	Beugen Morgens / Tagsüber / Abends	Sitzen / Aufstehen vom Sitzen	Stehen in Ruhe	Gehen bei Bewegung	Liegen
Was eliminiert/ reduziert?	Beugen Morgens / Tagsüber / Abends	Sitzen / Aufstehen vom Sitzen	Stehen in Ruhe	Gehen bei Bewegung	Liegen

Anderes:.....

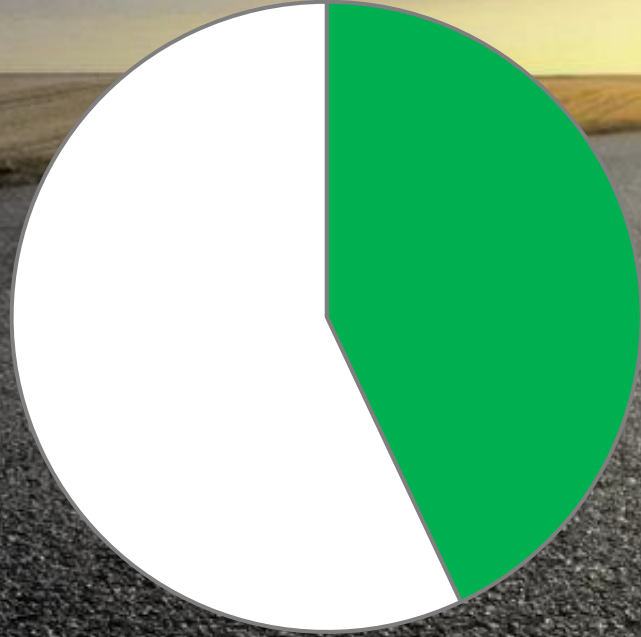
Gestörter Schlaf: Ja / Nein Schlafstellung: BL / RL / SL (R) (L) Matratze: Hart / Weich / Durchhängend
 Vorherige Episoden: 0 1-5 6-10 11+ Erste Episode im Jahr:.....
 Vorgeschichte:.....
 Frühere Behandlungen:.....

SPEZIFISCHE FRAGEN:

Husten / Niesen / Pressen +/- Blase: Normal / gestört Gang: Normal / gestört
 Medikamente: Keine / NSAR / Analg / Steroide / Anticoag / Anderes.....
 Allgemeine Gesundheit: Gut / Mäßig / Schlecht.....
 Bildgebende Verfahren:.....
 Operation: Ja / Nein.....Nachtschmerz: Ja / Nein.....
 Unfälle: Ja / Nein.....Unerwarteter Gewichtsverlust:.....
 Anderes:.....
 Ziel / Erwartung des Patienten:.....

give me a break





25 %

SUCCESS

311

MDT Clinicians
1781

1470

47 %

30 % 40 % 50 % > 50 %

46 % not successful with half of their patients

less than 10 % about 10 % about 20 % about 30 % about 40 % about 50 % about 60 %

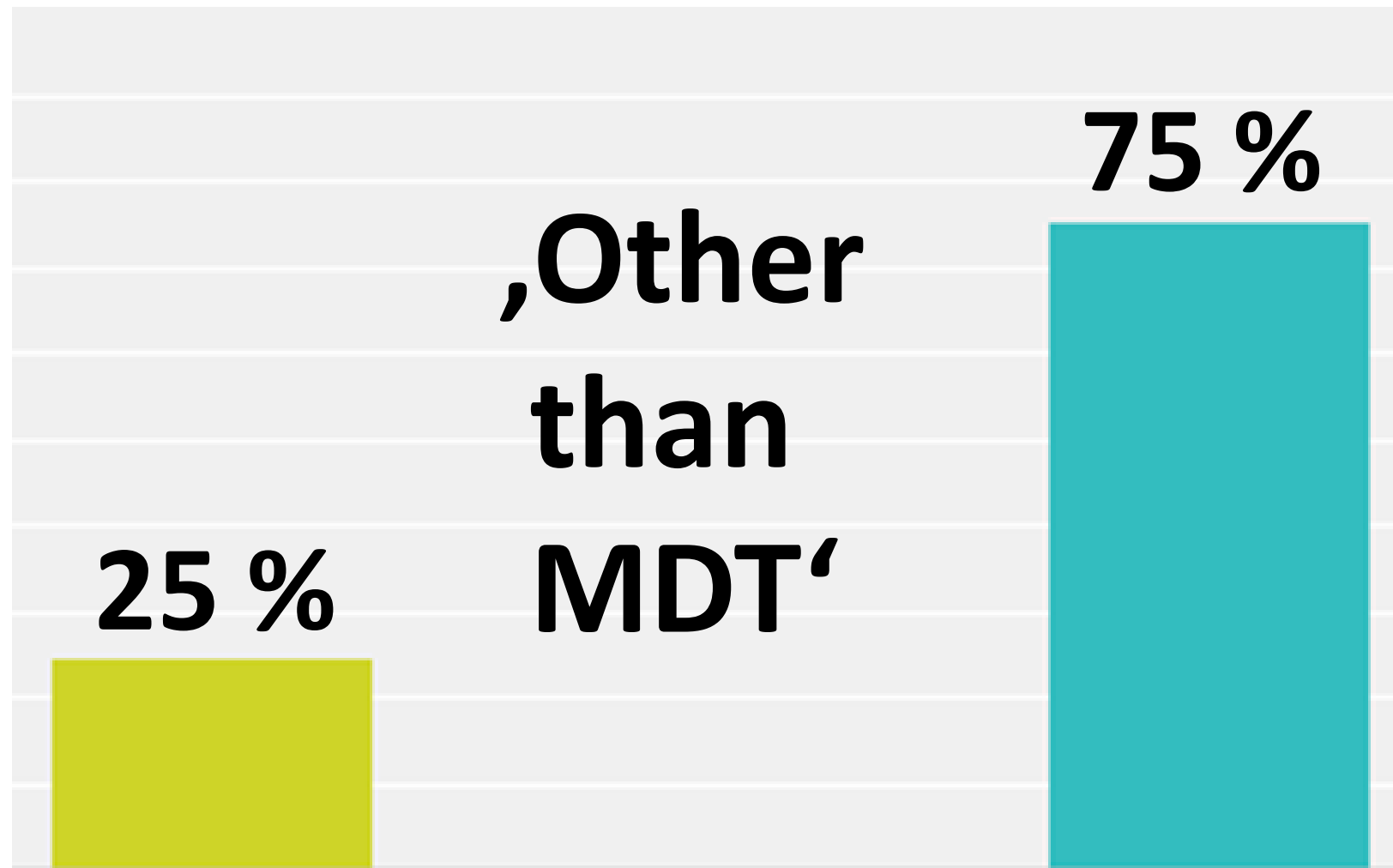
Likely more successful with

92 %



- Back
- Neck
- Shoulder
- Ankle
- Wrist
- Elbow
- Hand

13 %



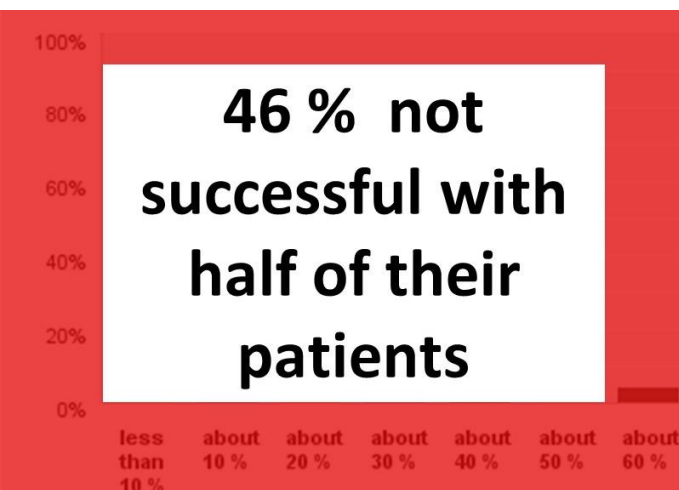
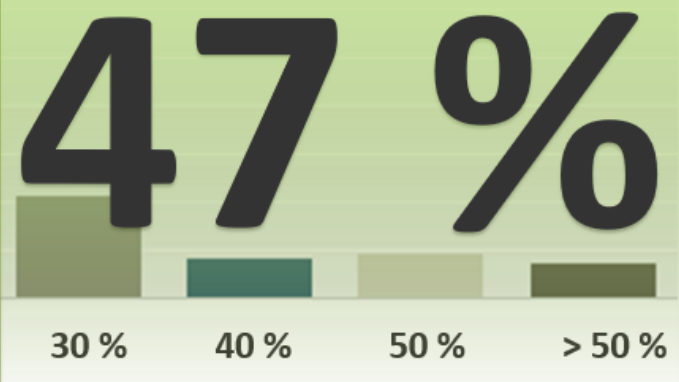
25 %

,Other than MDT'

75 %

No

Yes



46 % not successful with half of their patients





**...pushing back the ligament or the tendon
corrects it, he gets up and starts running
again**

Mittelbayerische Zeitung 02.10.2015

Bleakley 2012, Lohmander 2016, Roberts 2015, Quintner 2015




**TAPE IT AND
MAKE IT.**

??????

Parreira 2014, Csapo 2015, Lim 2015

Peer Mertesacker, Soccer World Champion 2014

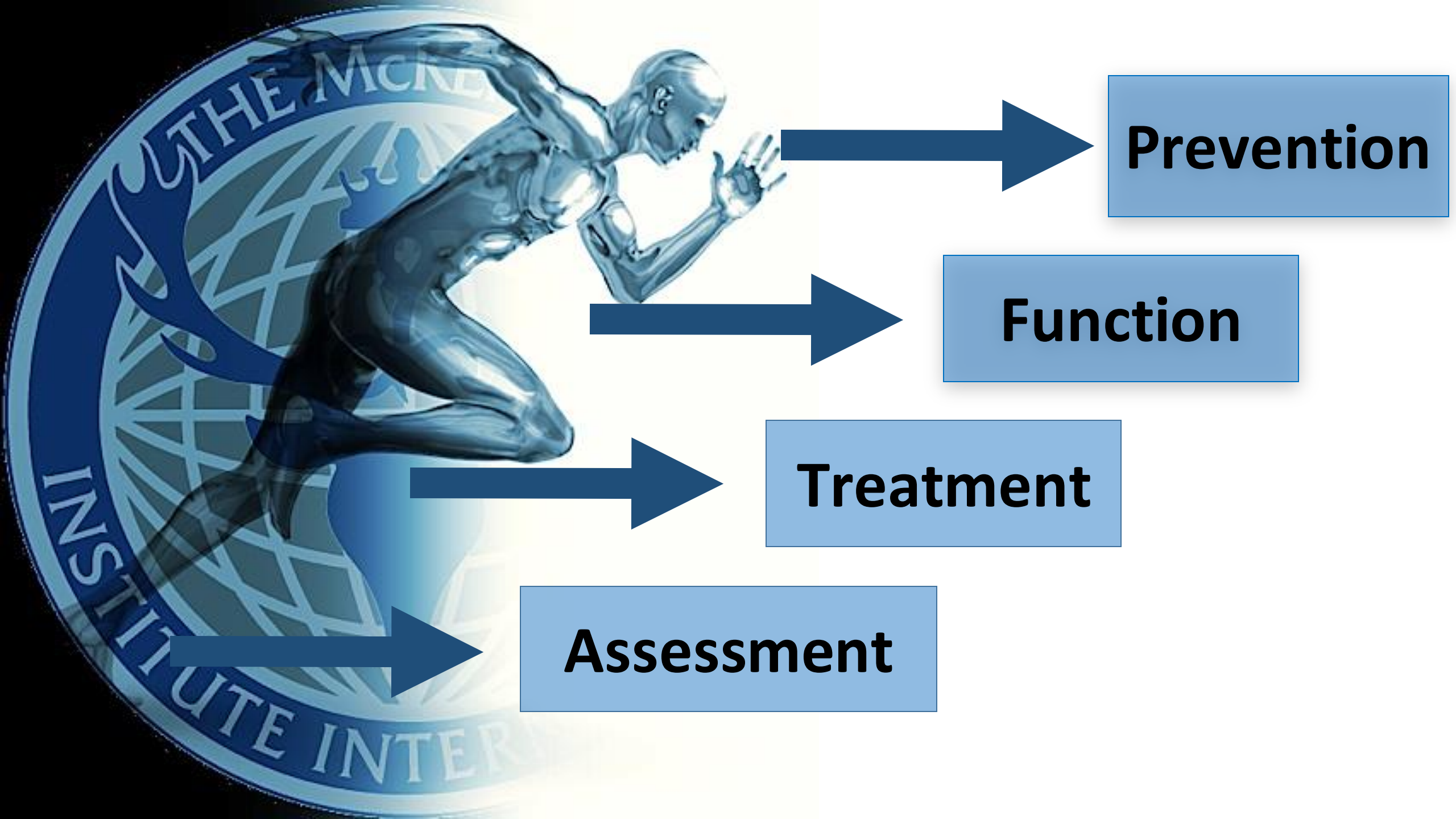


I lay down in the ice bath now for three days and then we analyze the match...

Costello 2015

To Take

Home

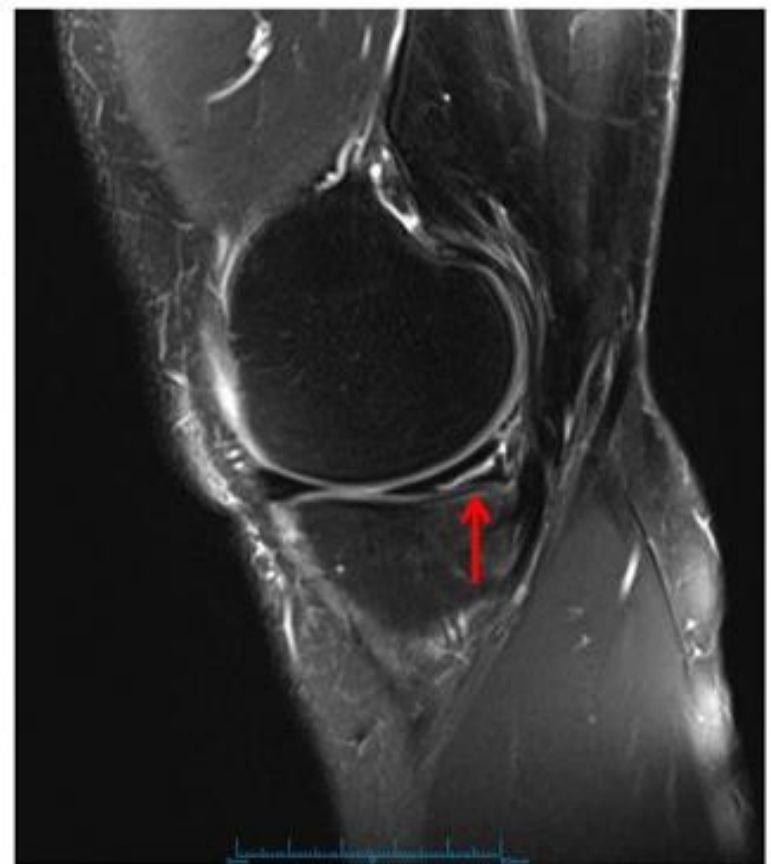
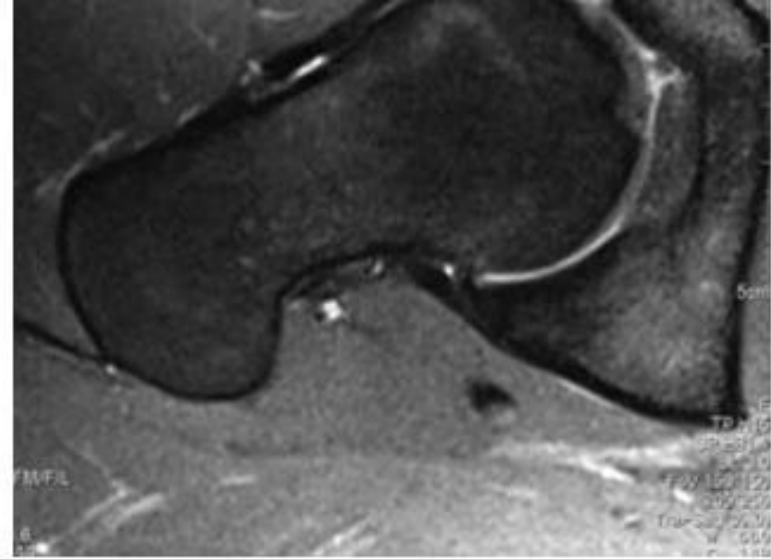


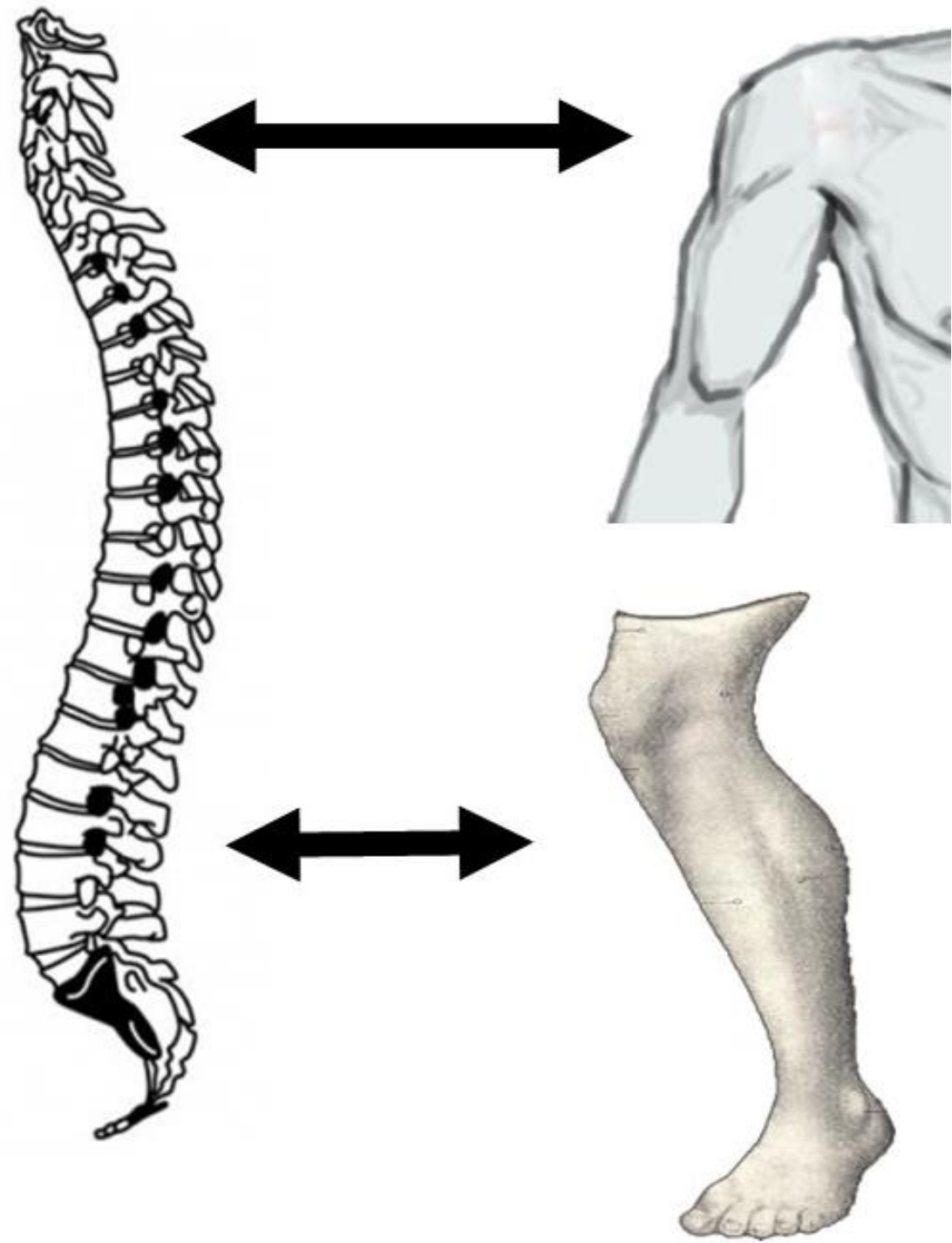
Prevention

Function

Treatment

Assessment





Derangement





PR NW

Function





McKenzie

Sports Physical Therapy



September 2015 Copenhagen / DK

October 2015 Wellington / NZ

June 2016 Poznan / PL

June 2016 Copenhagen / DK

August 2016 Miami / USA

further, further, further,...

Make

MDT

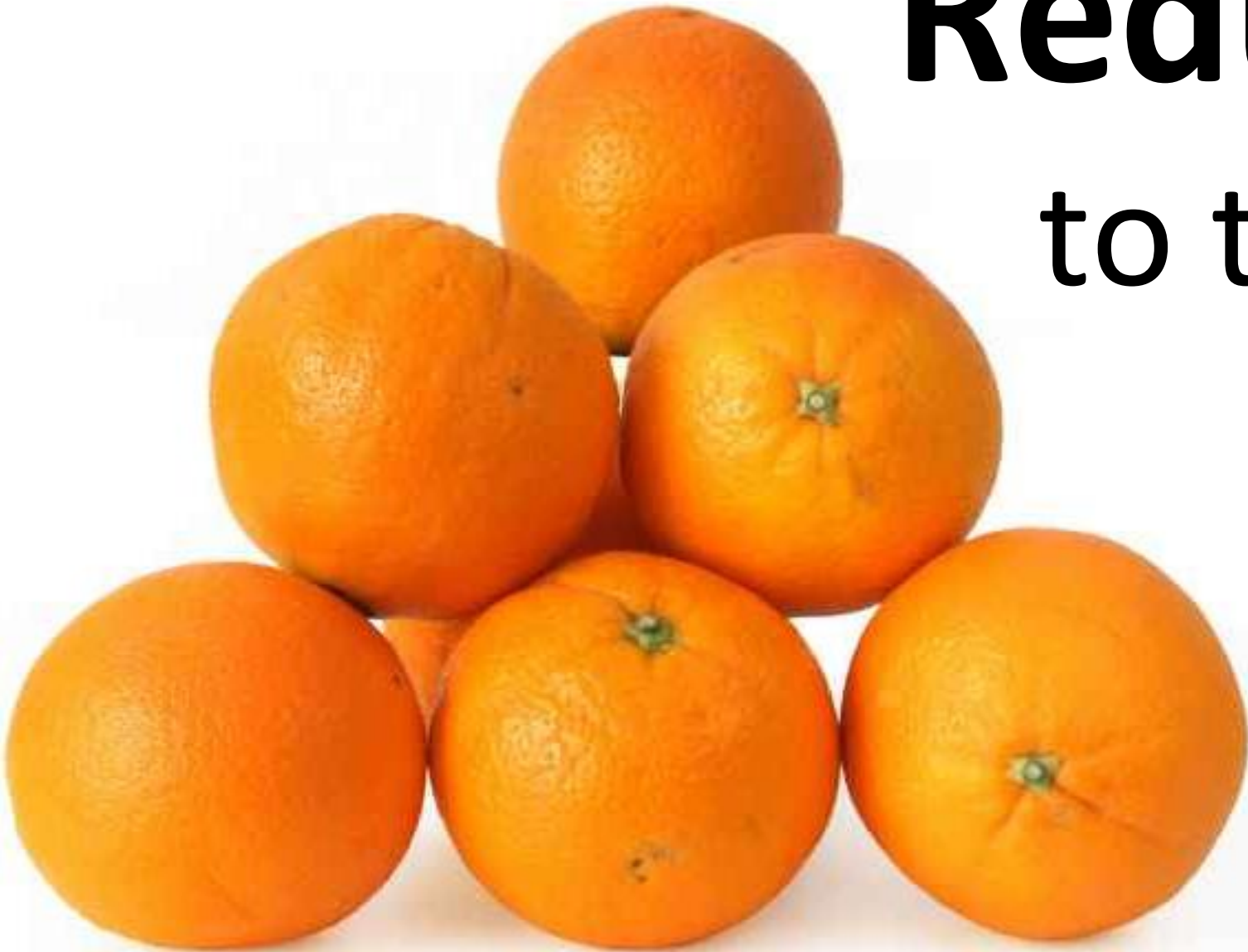
SEXY!



Reduce

to the

Max



Reduce

to

Mac's

