



Mecanismo de lesión

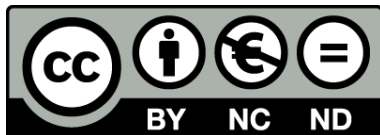
Parte 2. Tobillo, espalda y cabeza

Asignatura: Readaptación deportiva y reentrenamiento físico-deportivo

Docentes

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LIGAMENTOS DE TOBILLO

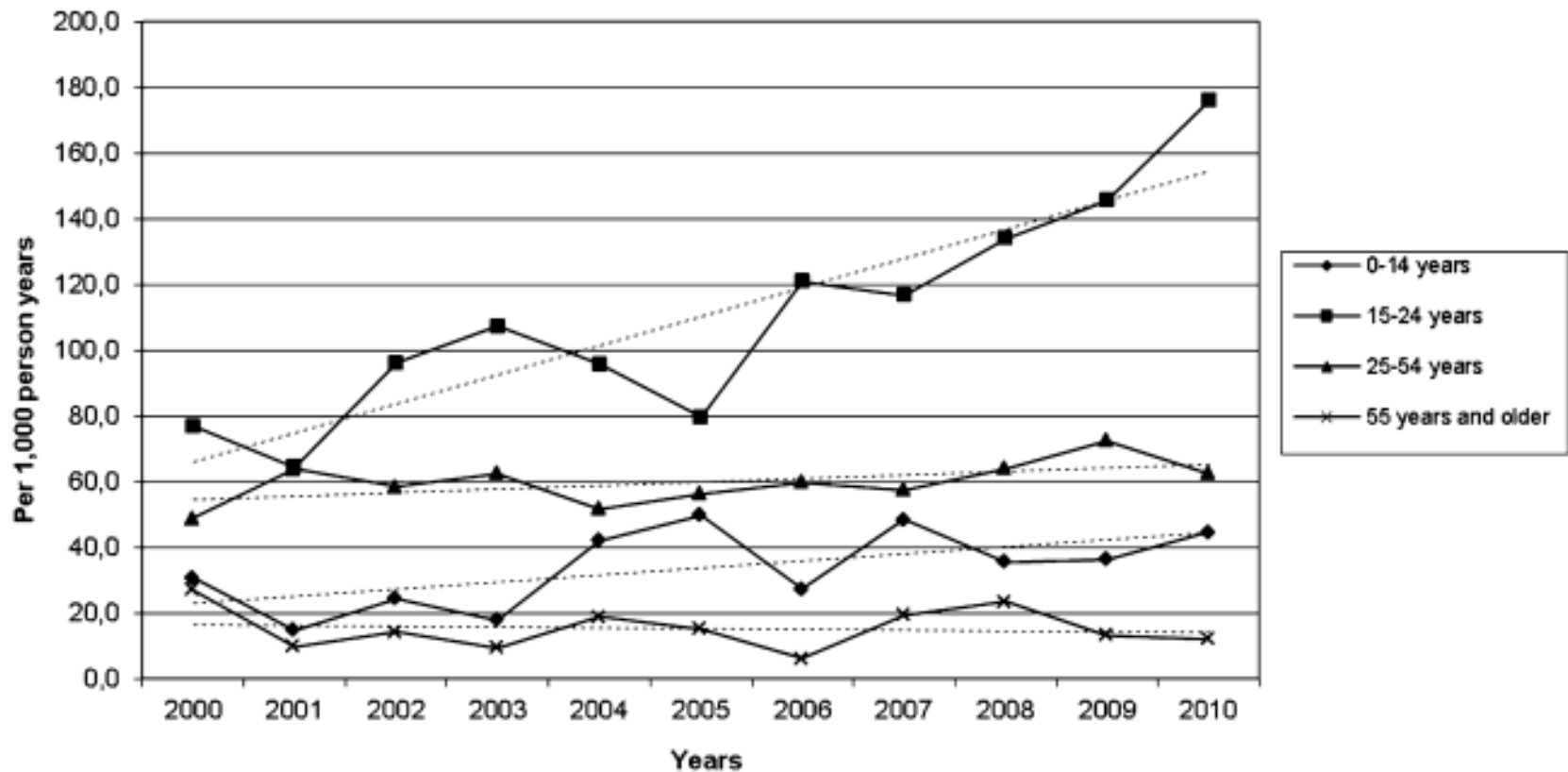
MECANISMOS DE LESIÓN





INCIDENCIA

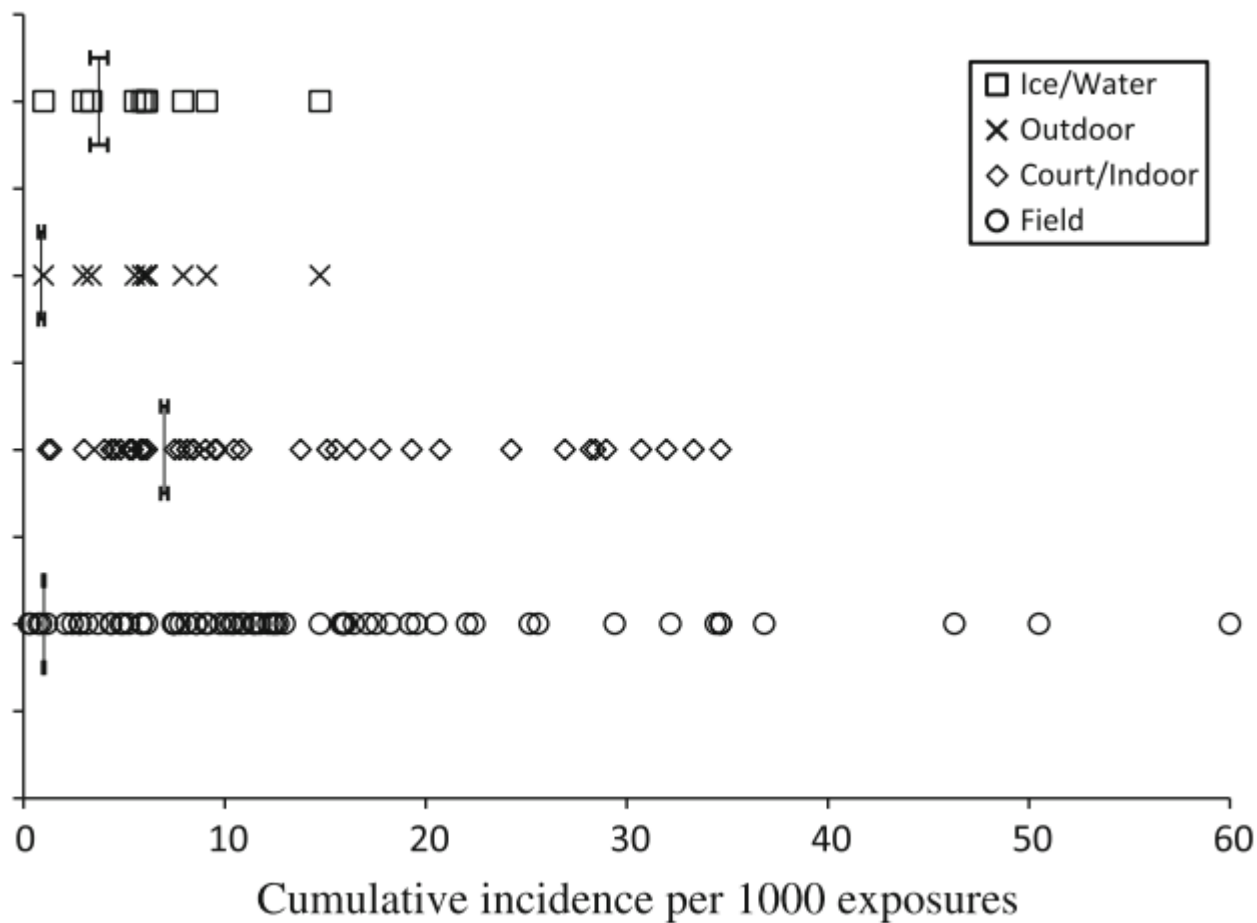
ANKLE SPRAINS



20-80% reinjuries

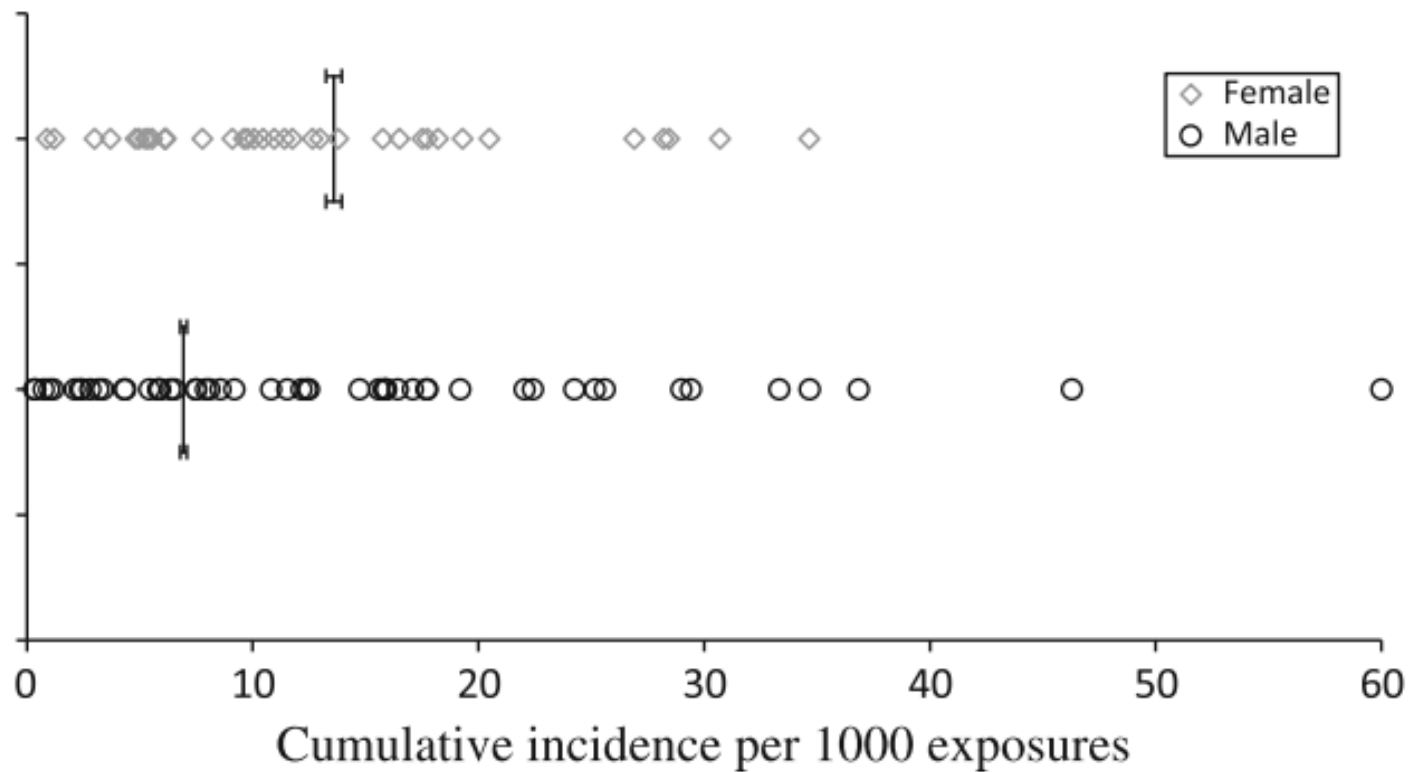


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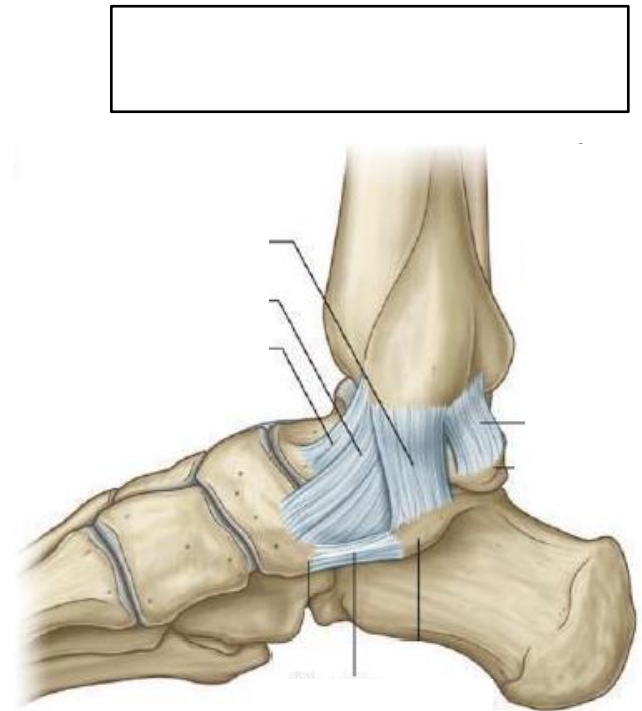
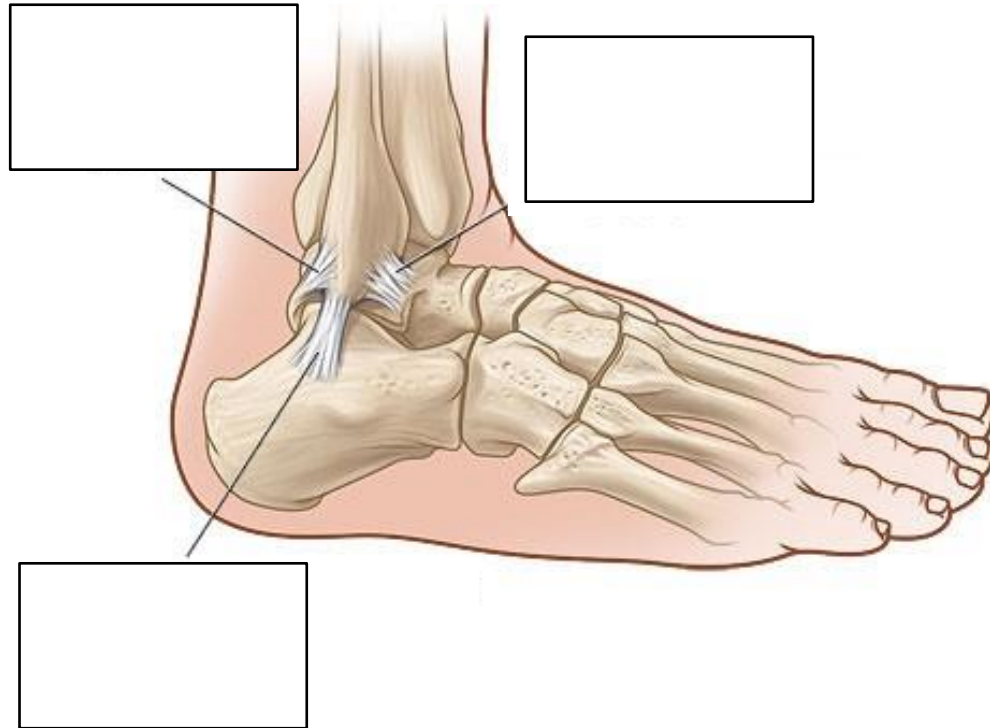


INCIDENCIA





ANATOMÍA



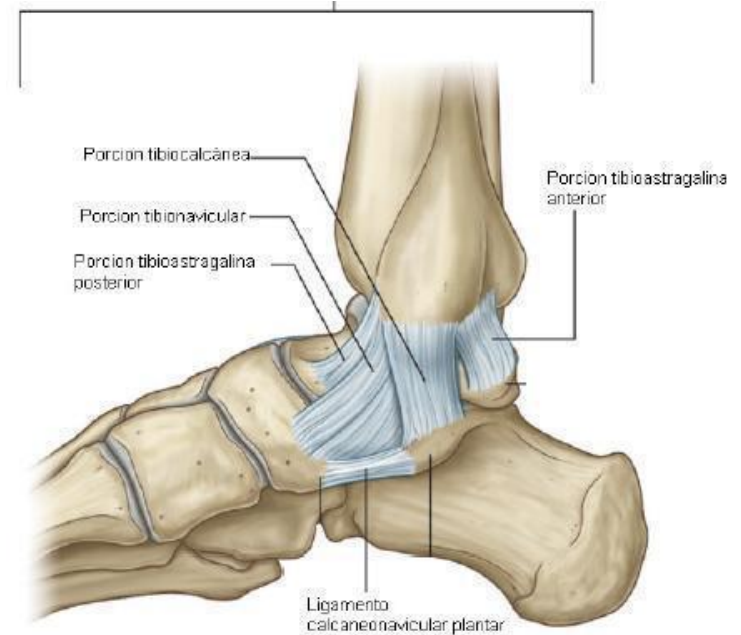


ANATOMÍA

Ligamento colateral externo



Ligamento colateral interno / Ligamento deltoideo





DISTRIBUCIÓN LESIONES



¿CÓMO SE PRODUCE LA LESIÓN DE LIGAMENTOS DE TOBILLO?



MECANISMO

#VÍdeo 6





MECANISMO

Video 7



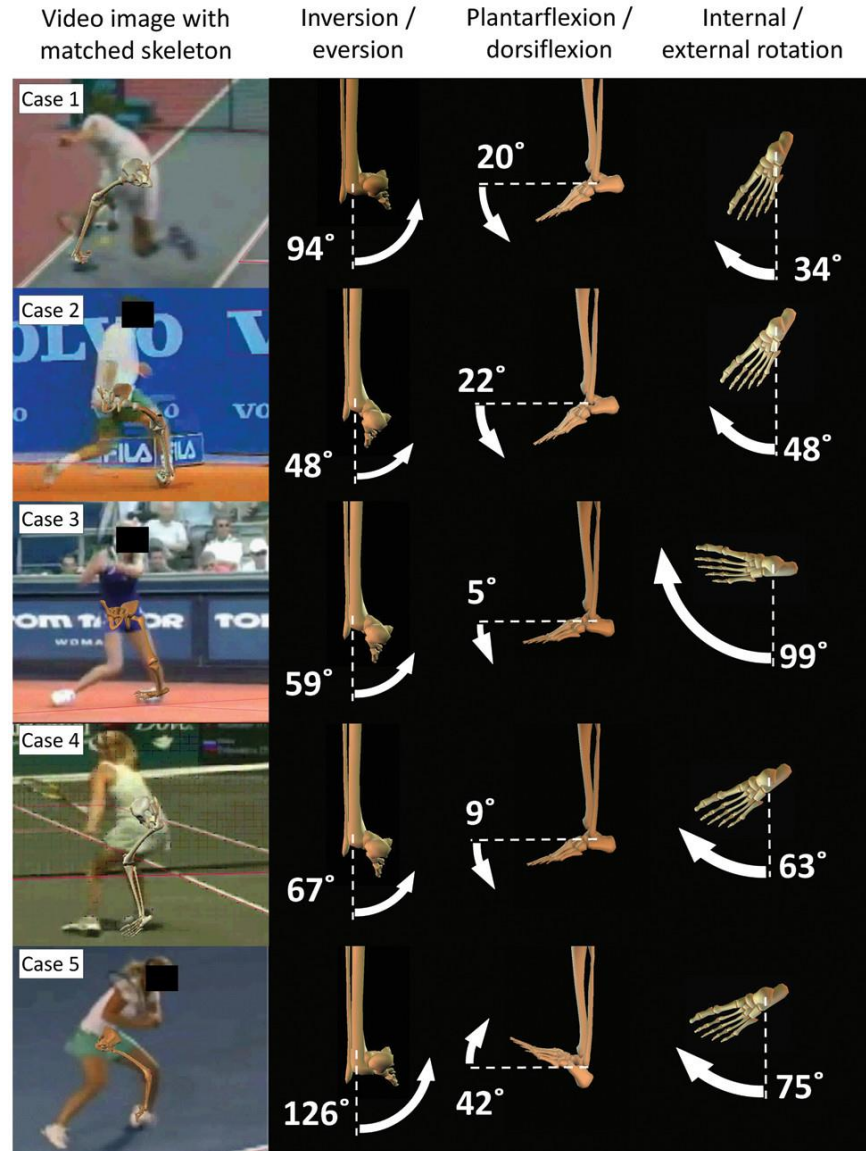


MECANISMO





MECANISMO





MECANISMO





MECANISMO

Does the Spraino Low-friction Shoe Patch Prevent Lateral Ankle Sprain Injury in Indoor Sports?

What is Spraino?

Spraino is a novel low-friction patch that can be attached to the outside of sports shoes to minimize friction at the lateral edge. This could mitigate the risk of lateral ankle sprain injuries.



How Spraino Works



Shoe-surface friction



Horizontal ground reaction forces

Normal



Shoe sole

Floor

Spraino®



Shoe sole

Floor

In case of a bad landing, Spraino minimises the otherwise high shoe-surface friction at the lateral edge of the shoe. This minimises the horizontal ground reaction forces (GRF), thereby bringing the GRF vector closer towards the joint centre which serves to prevent excessive ankle inversion and internal rotation.

Study Details

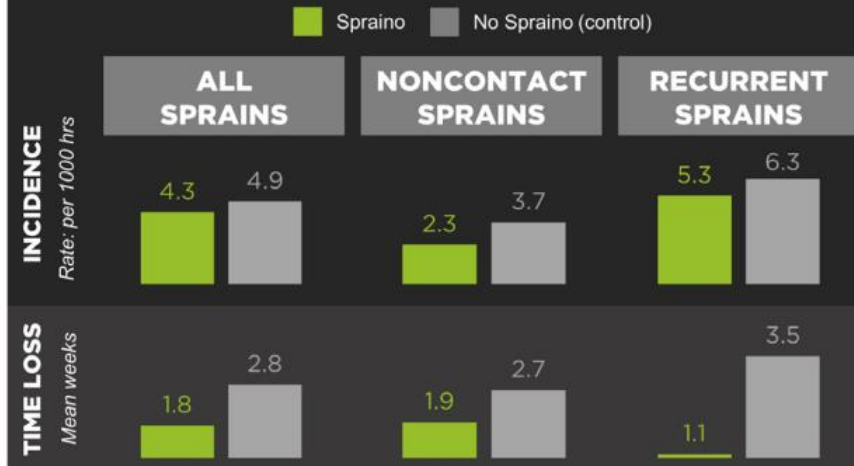
510 subelite indoor sport athletes with a previous lateral ankle sprain were randomly allocated to Spraino (n=256) or 'do-as-usual' (n=254); Match and training exposure, number of injuries and associated time loss were captured weekly.

Main Findings

- 1 Spraino shows promising effects and appears safe when used to mitigate the risk of non-contact lateral ankle sprain injuries in indoor sport athletes.
- 2 Athletes randomised to Spraino had a 53% lower incidence rate of severe lateral ankle sprain injuries than the control athletes.
- 3 Spraino seems to reduce ankle-related pain and fear of lateral ankle sprain injuries.



Lateral Ankle Sprain Incidence & Time Loss



Ankle Sprain Fear and Pain: Baseline vs. Follow-up





+ ESPALDA

MECANISMOS DE LESIÓN



INCIDENCIA

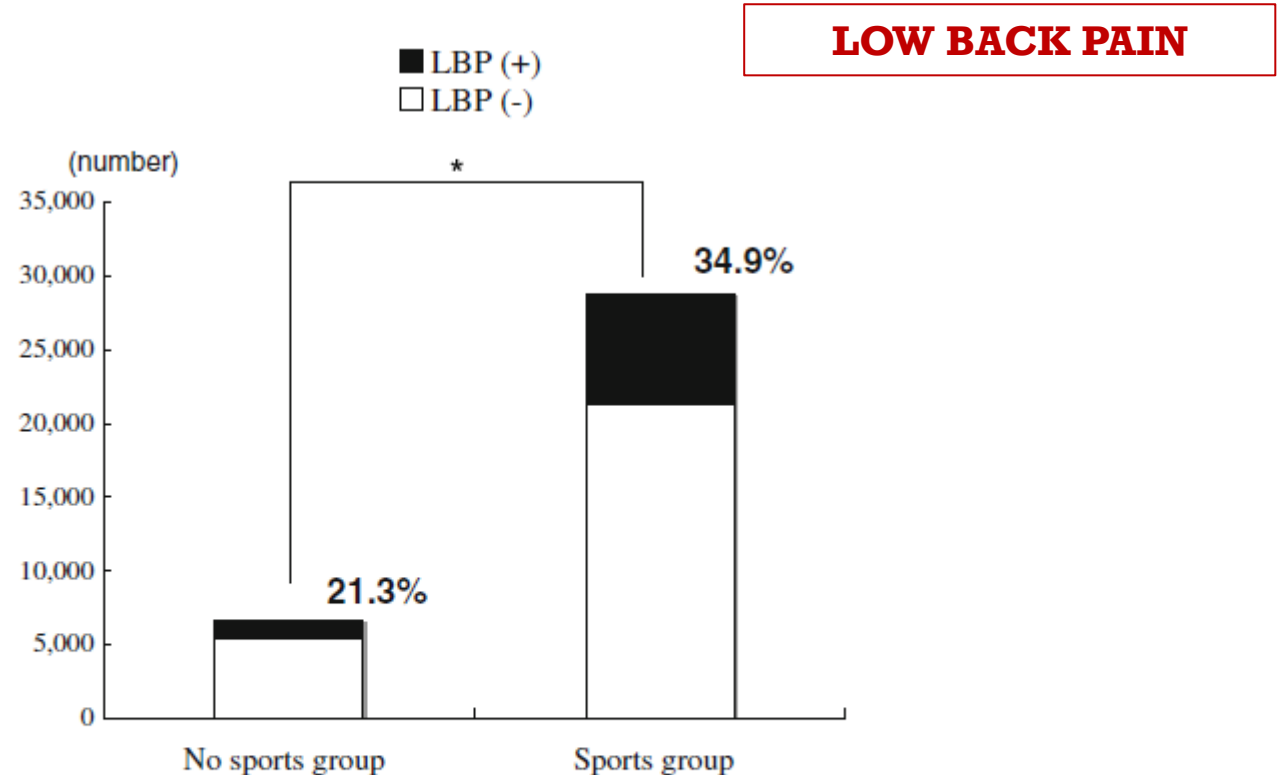


Fig. 3 The lifetime prevalence of LBP between *No sports group* and *Sports group*. The lifetime prevalence of LBP was significantly higher in *Sports group* (* $P < 0.001$; χ^2 analysis; grade, gender, and BMI corrected)



INCIDENCIA

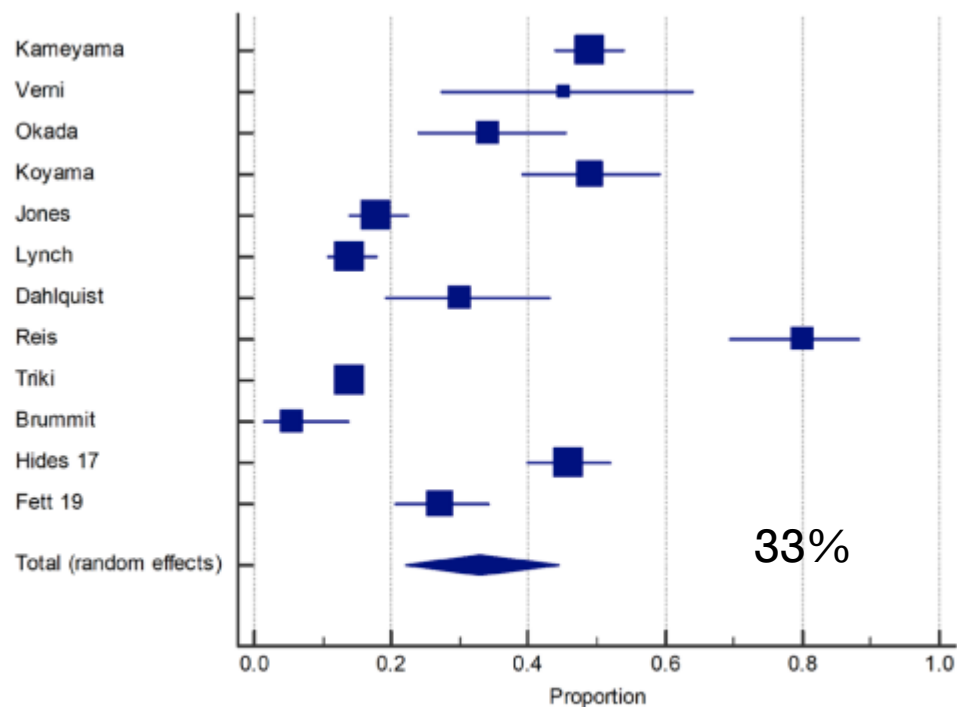


Table 2 Point prevalence of low back pain across different sports

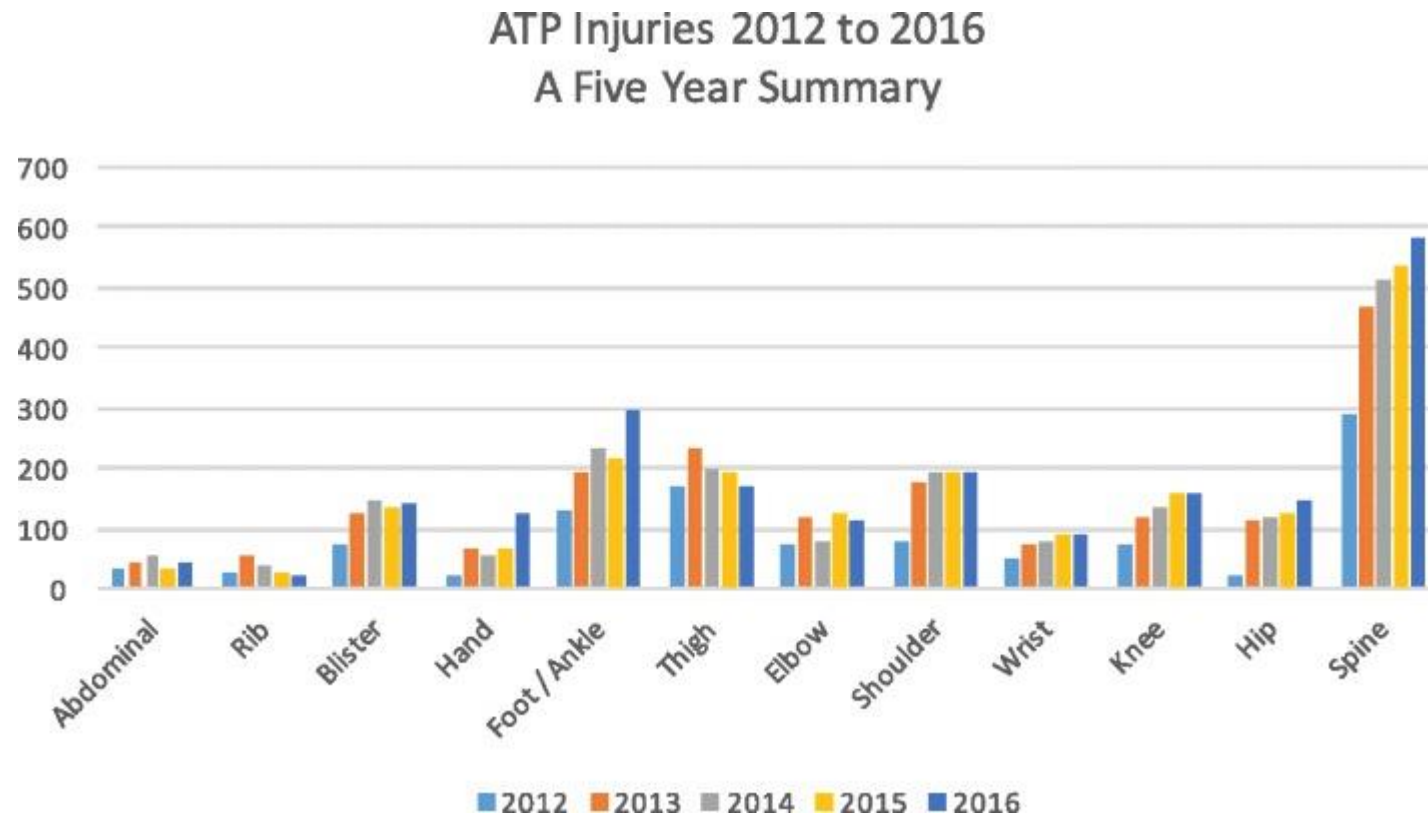
Sport	Number of athletes	Point prevalence
AFL ³⁸	275	46%
Baseball ⁴⁰	336	18%
Basketball ⁷³	71	6%
Canoe racing ⁴¹	417	49%
Cycling ⁵²	63	30%
Gymnastics ⁹¹	104	49%
Jiu-jitsu ⁶⁵	80	81%
Judo ⁹²	82	41%
NFL ⁹⁶	414	14%
Swimming ^{46 88}	31	45%

AFL, Australian Football League.

Figure 4 Forest plot of point prevalence of low back pain.

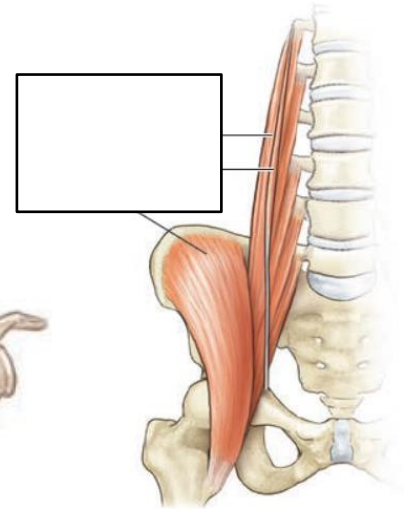
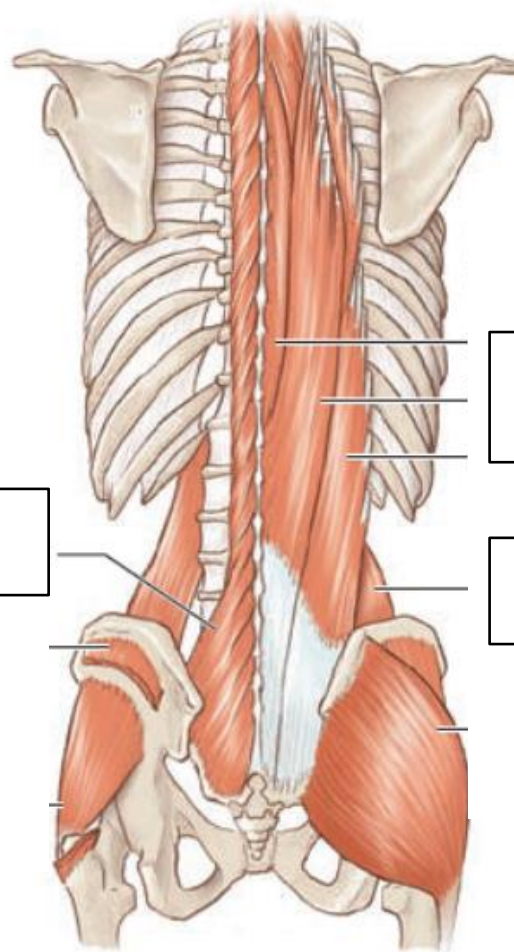
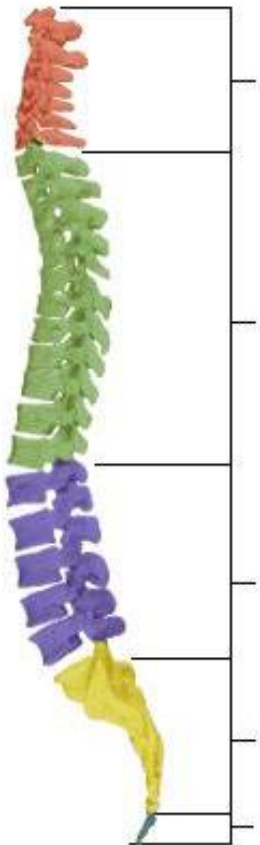


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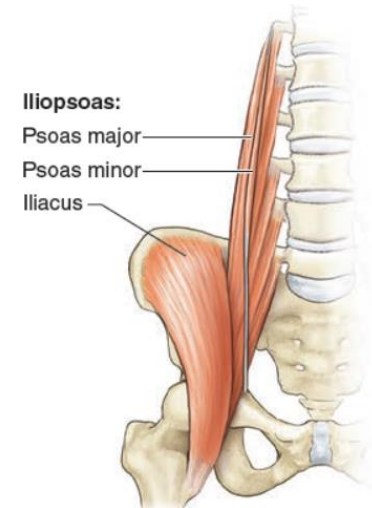
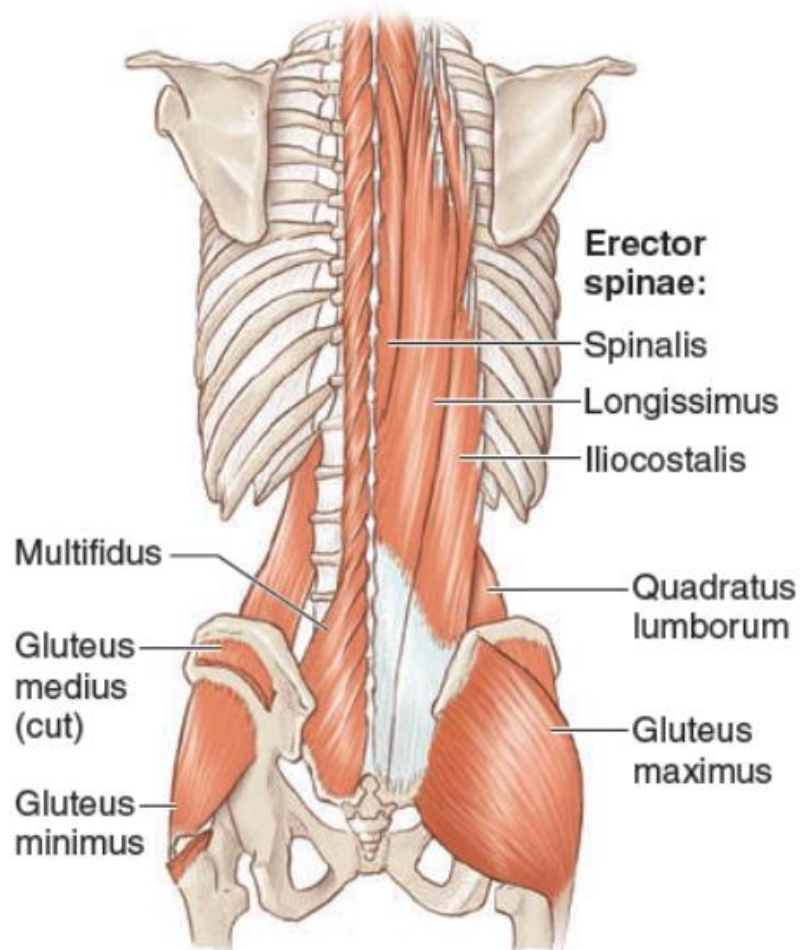
ANATOMÍA





ANATOMÍA

Columna Vertebral

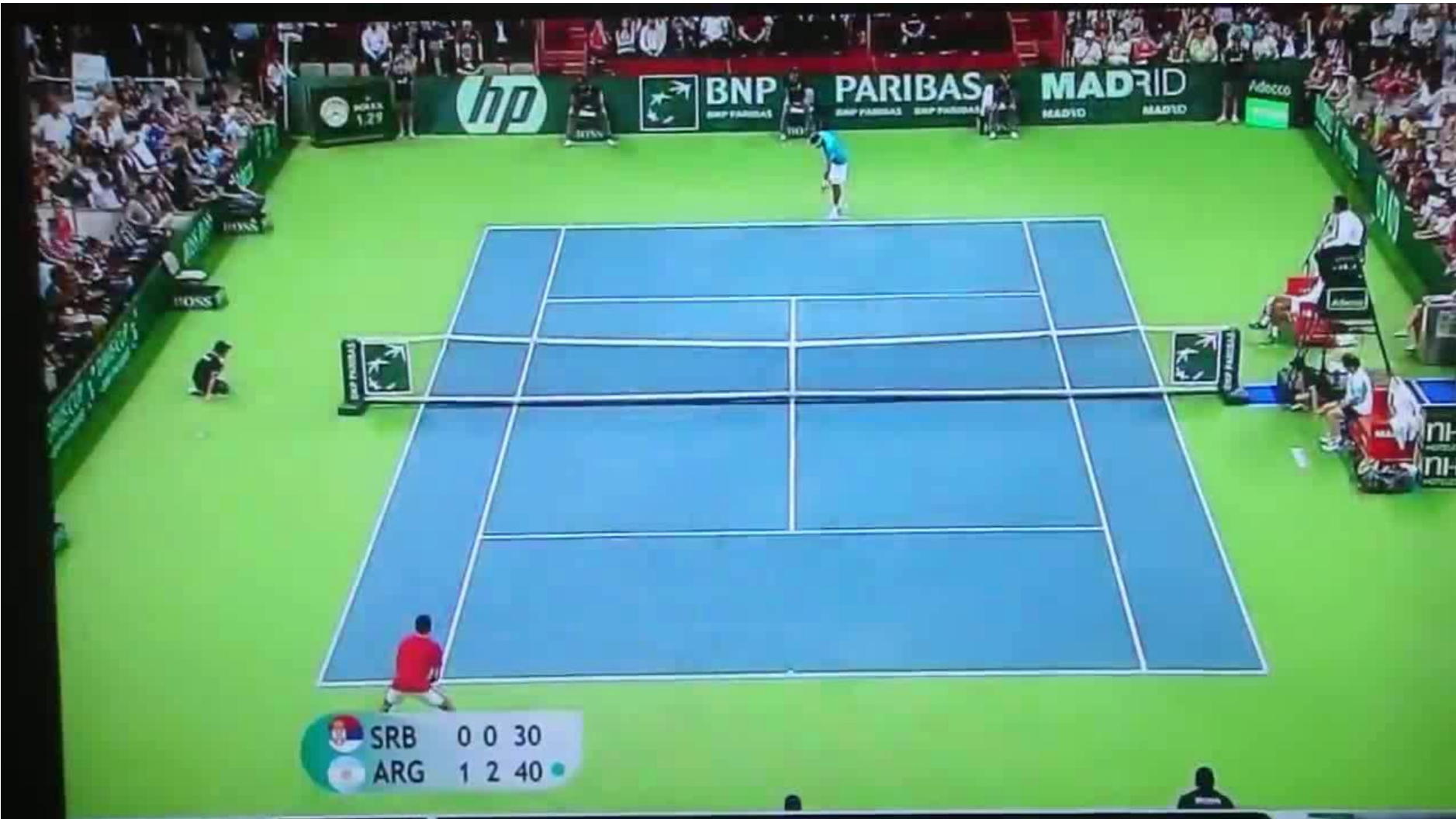


**¿CÓMO SE PRODUCE EL
DOLOR DE ESPALDA?**



MECANISMO

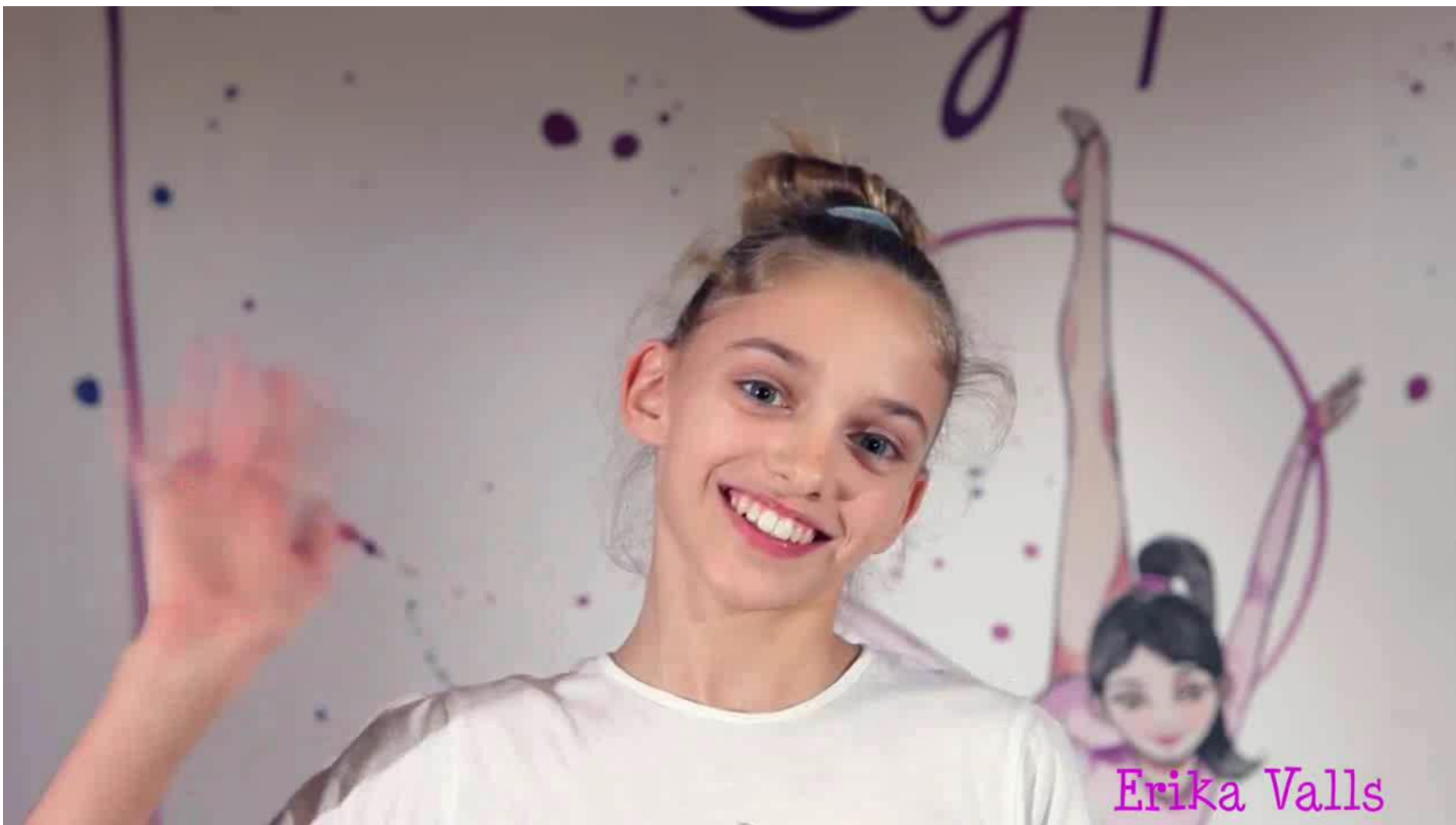
Vídeo 8





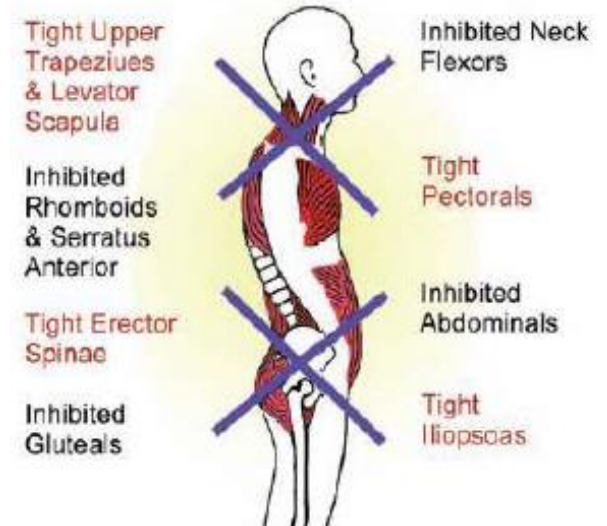
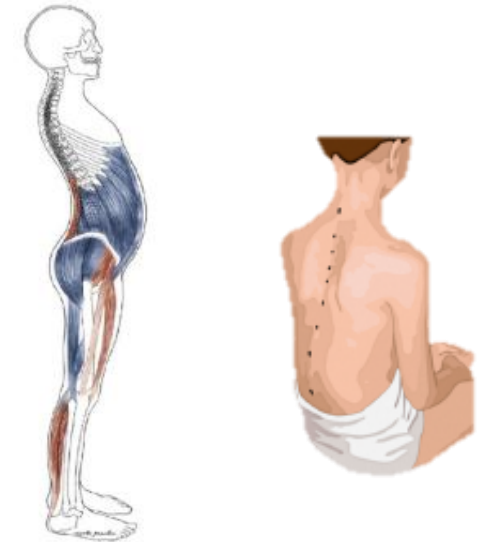
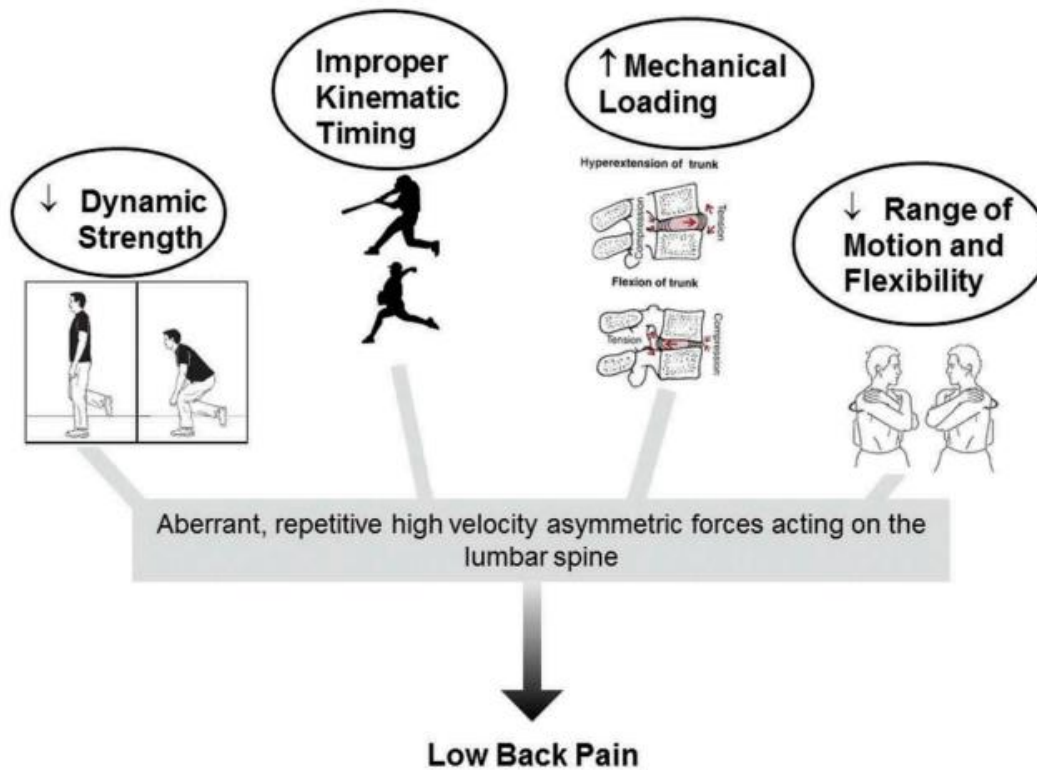
MECANISMO

Video 9





MECANISMO





CABEZA

MECANISMOS DE LESIÓN



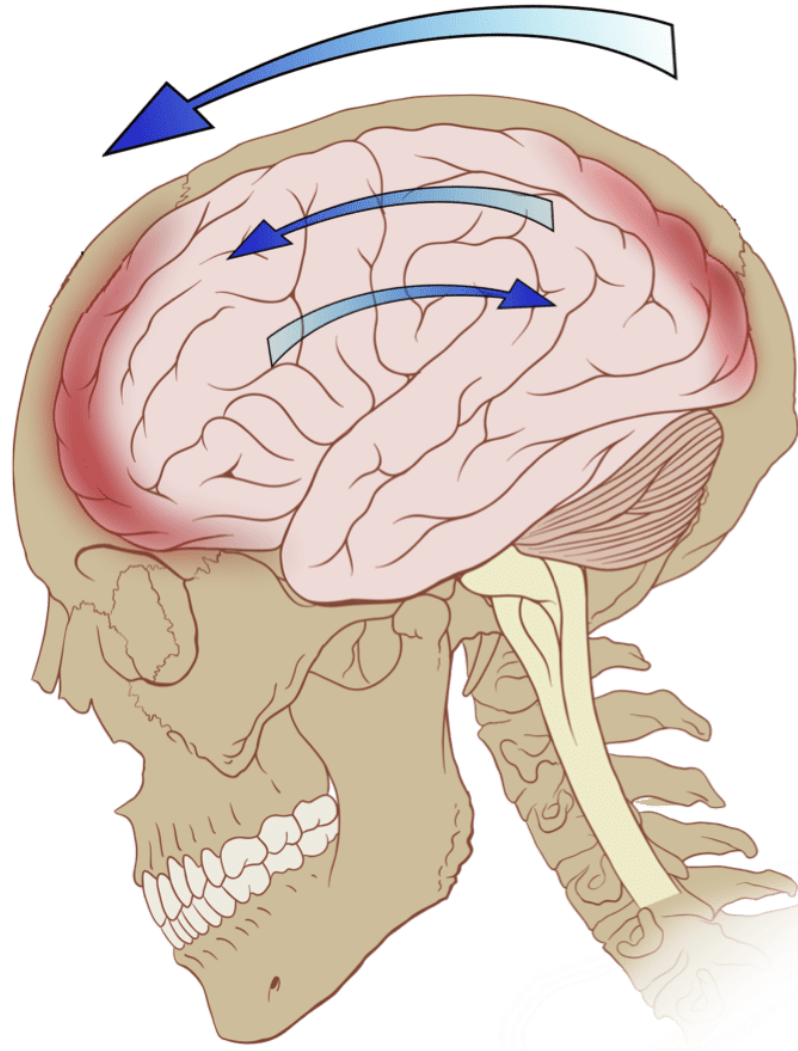
INCIDENCIA

Age	Number of athletes	Number of concussions	Risk (%)	RR	Adjusted RR ^a (95% CI)	ARR <i>p</i> -value
13	512	40	7.8	Reference	Reference	NA
14	2,352	178	7.6	0.97 (0.70, 1.35)	0.82 (0.59, 1.15)	0.248
15	2,477	363	14.7	1.88 (1.37, 2.56)	1.53 (1.11, 2.11)	0.009**
16	2,470	309	12.5	1.60 (1.17, 2.19)	1.32 (0.96, 1.83)	0.089*
17	1,944	255	13.1	1.68 (1.22, 2.31)	1.39 (1.01, 1.93)	0.046*
18	579	105	18.1	2.32 (1.65, 3.28)	1.91 (1.35, 2.71)	0.0003**

CONCUSSION

Sport	Number of athletes	Number of concussions	Risk (%)	RR	Adjusted RR ^a (95% CI)	ARR <i>p</i> -value
Wrestling/martial arts	980	204	20.8	6.56 (2.48, 17.33)	6.07 (2.30, 16.02)	0.0003**
Cheerleading	533	85	15.9	5.02 (1.88, 13.44)	3.99 (1.49, 10.70)	0.0059**
Football	2,724	420	15.4	4.86 (1.84, 12.79)	5.68 (2.15, 14.98)	0.0005**
Track and field	137	20	14.6	4.60 (1.62, 13.09)	4.24 (1.49, 12.04)	0.0067**
Softball	441	56	12.7	4.00 (1.48, 10.82)	3.28 (1.21, 8.89)	0.0193*
Basketball	1,329	157	11.8	3.72 (1.40, 9.87)	3.52 (1.33, 9.32)	0.0114*
Soccer	1,681	184	10.9	3.45 (1.30, 9.13)	3.11 (1.18, 8.23)	0.0223*
Baseball	532	34	6.4	2.01 (0.73, 5.57)	2.39 (0.86, 6.61)	0.0945
Volleyball	1,202	60	5	1.57 (0.58, 4.25)	1.35 (0.50, 3.67)	0.5518
Water polo	275	11	4	1.26 (0.41, 3.88)	1.00 (0.32, 3.12)	0.9998
Tennis	140	5	3.6	1.13 (0.31, 4.10)	1.10 (0.30, 3.99)	0.8868
Cross country	126	4	3.2	Reference	Reference	NA

+ ANATOMÍA



**¿CÓMO SE PRODUCE UNA
CONMOCIÓN CEREBRAL?**

+ MECANISMO

#Video 10

FIFPro

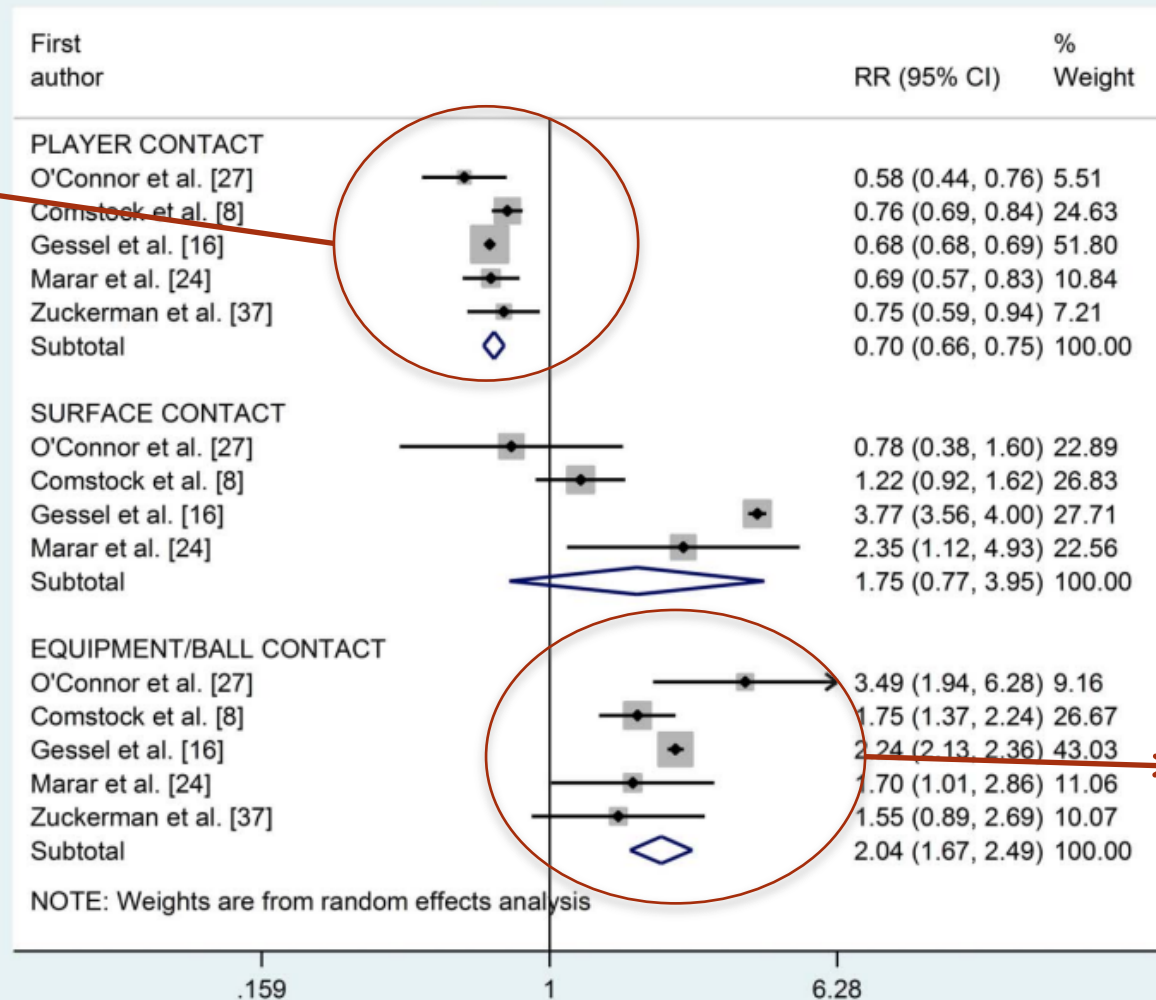




MECANISMO

HOMBRES

SOCCER



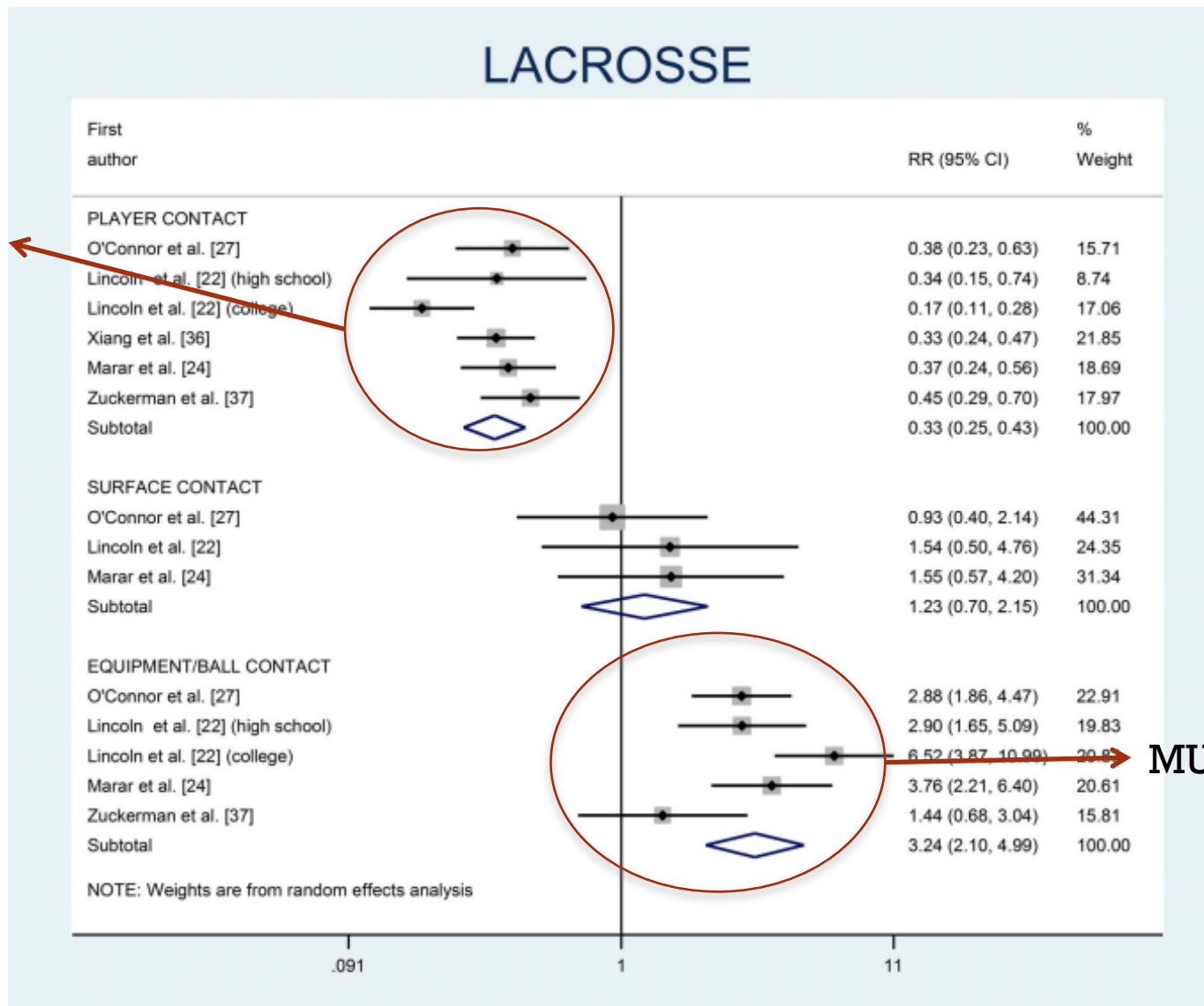
MUJERES



MECANISMO

LACROSSE

HOMBRES



MUJERES