Distribution of the Palmaris Longus Muscle

SFM Anatomy Course 2011

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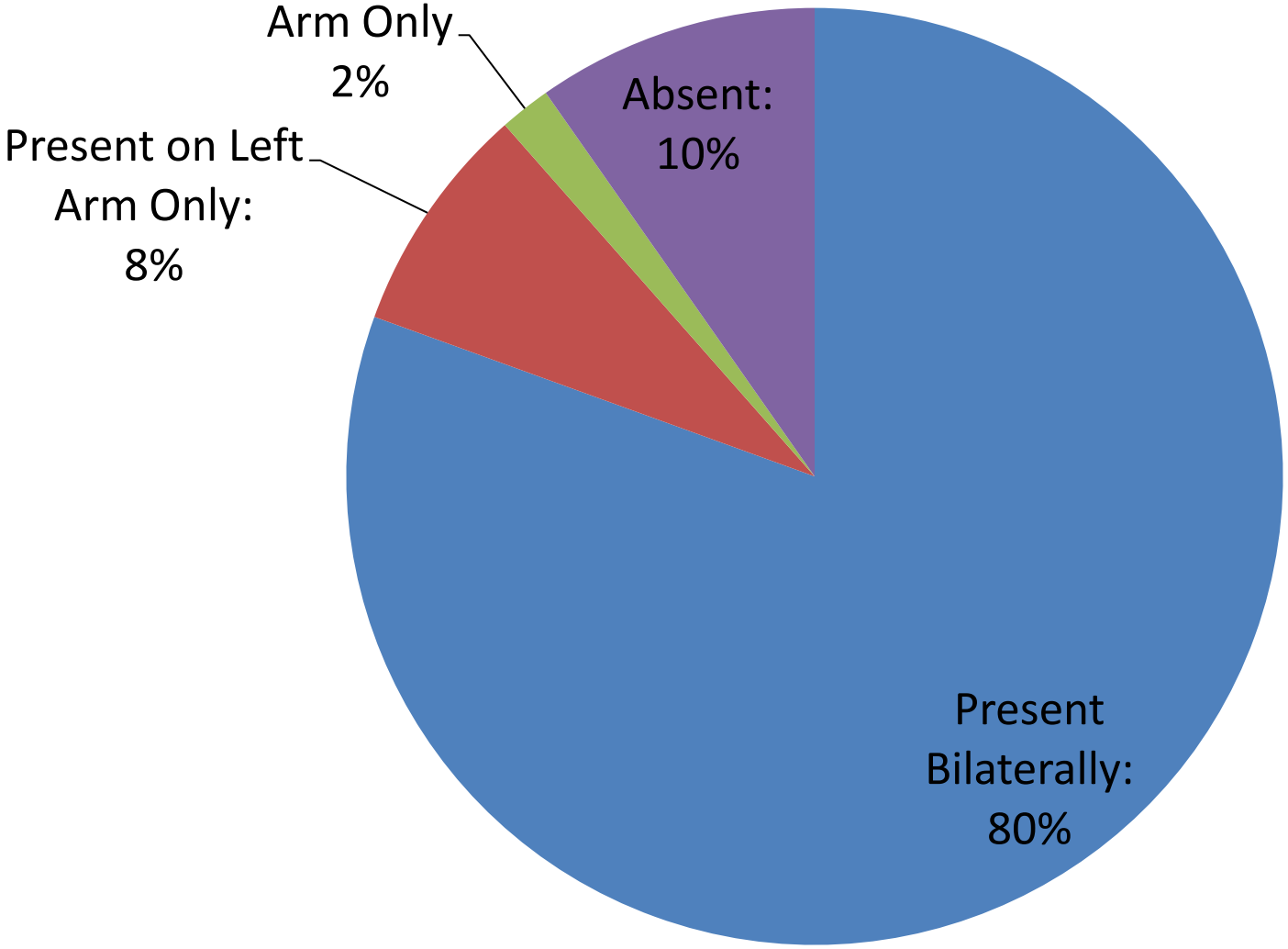
Source: http://img.tfd.com/MosbyMD/thumb/palmaris_longus-1.jpg

Financial Disclosures

SG reports nontrivial earnings from the Association of Palmaris Longus Enthusiasts (APLE)

Overall Class Distribution

(n = 113)



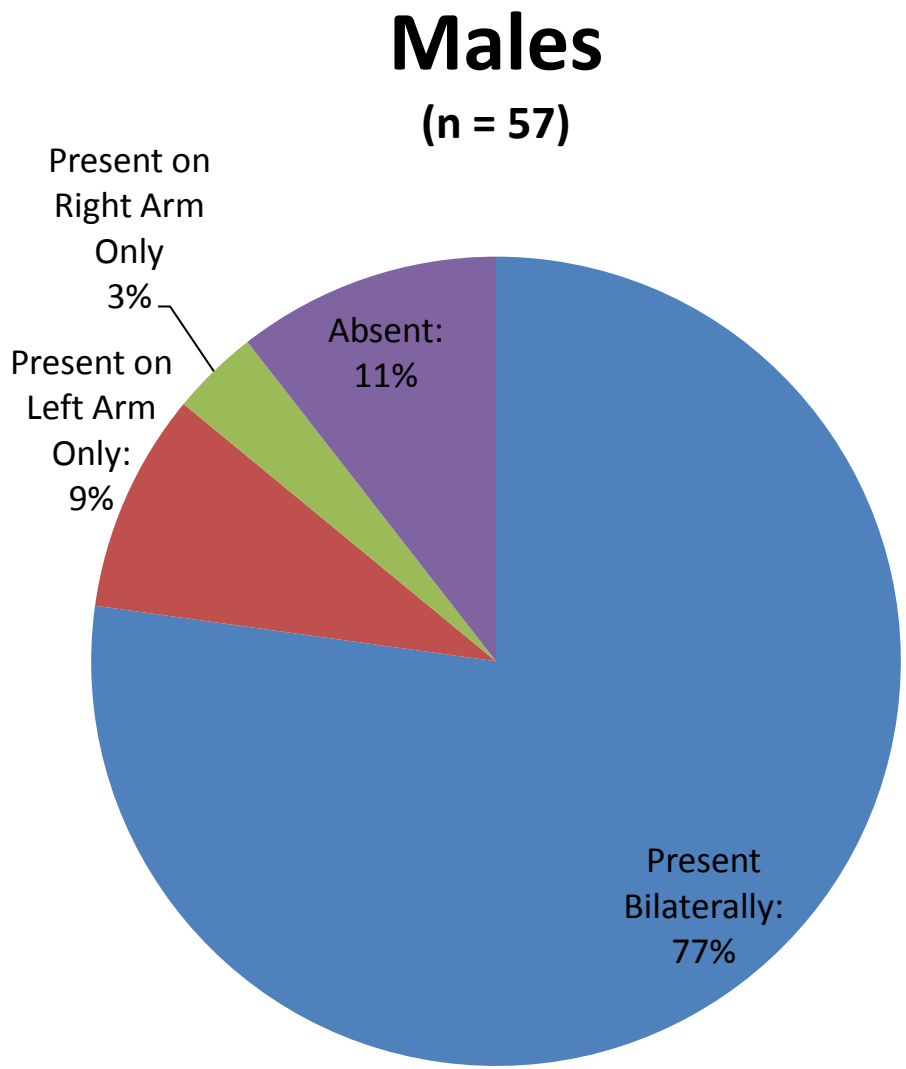
Statistics

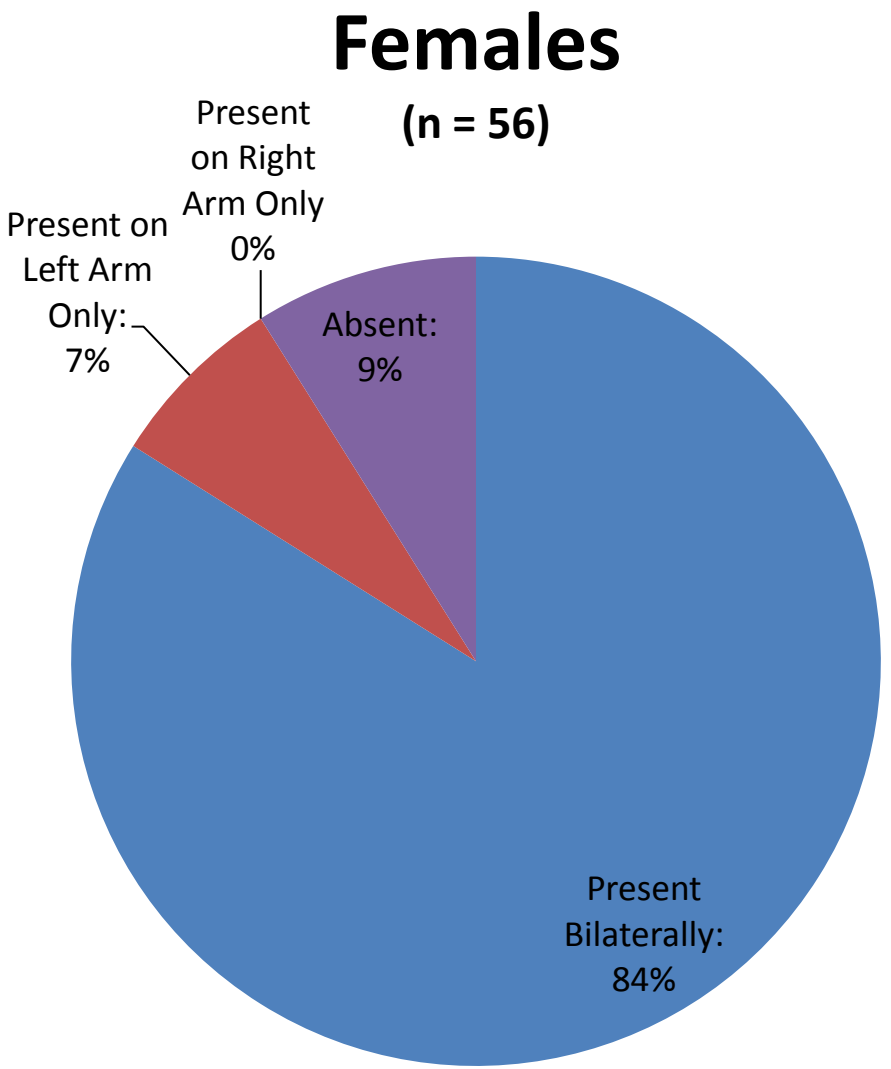
χ^2 Test Comparing Expected [1, Grays] (Population) Versus Observed (Anatomy Class) Bilateral Presence:

Overall
E: 85.0%
O: 80.0%
P = .183, ns

Note: small sample size so Chi Square Test is not robust.

Gender Distribution

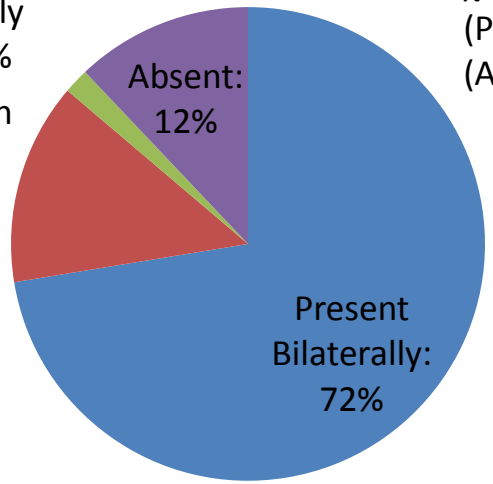




Not a statistically significant difference

Ethnic Group Distribution

Caucasian
(n = 58)

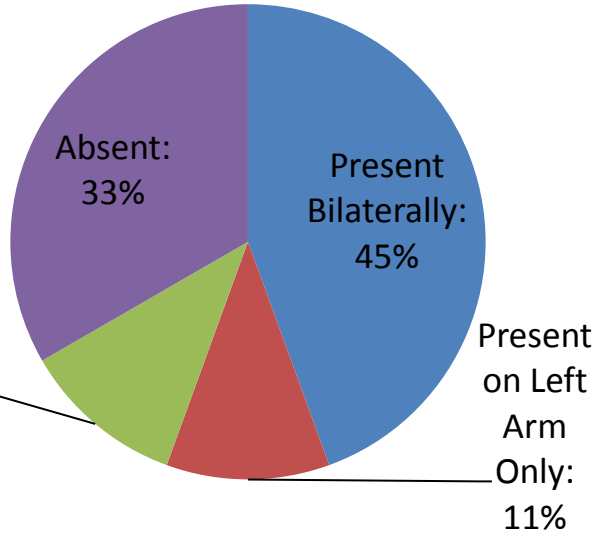


Caucasian
E: 78.0%
O: 72.0%
P = .300, ns

Statistics

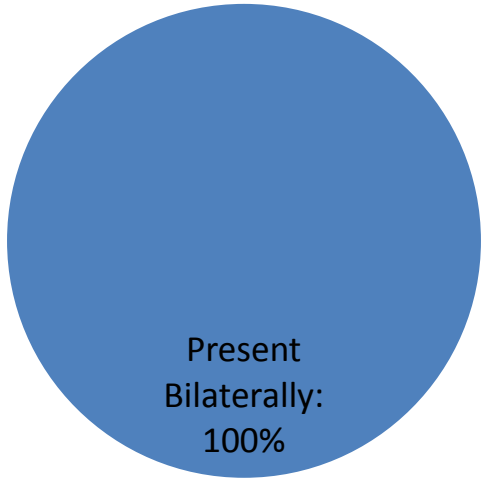
χ^2 Tests Comparing Expected [1, 2] (Population) Versus Observed (Anatomy Class) Bilateral Presence:

South Asian
(n = 9)



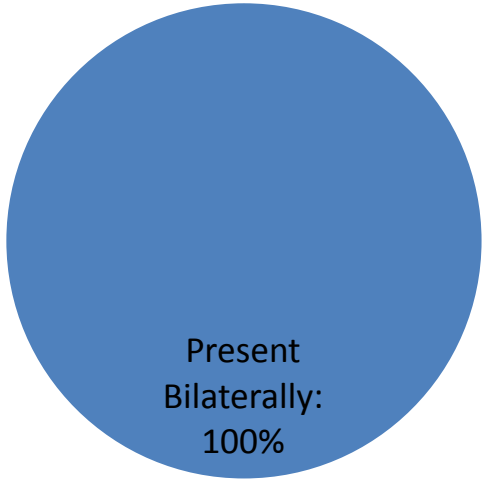
South Asian
E: 80.0%
O: 45.0%
P = .008,
significant

Black (or African American)
(n = 9)



Black
E: 97.0%
O: 100%
P = .600, ns

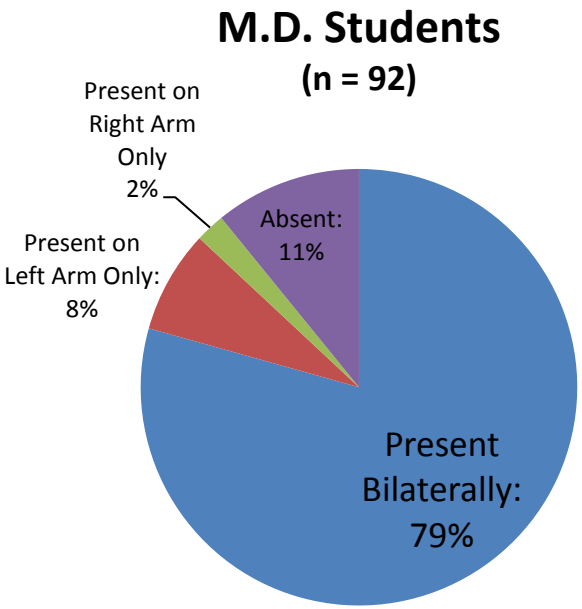
Asian (East, Pacific Islander)
(n = 31)

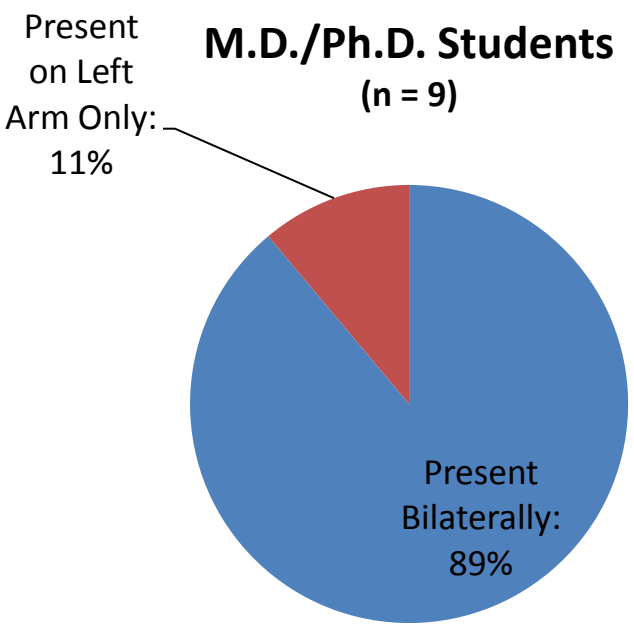


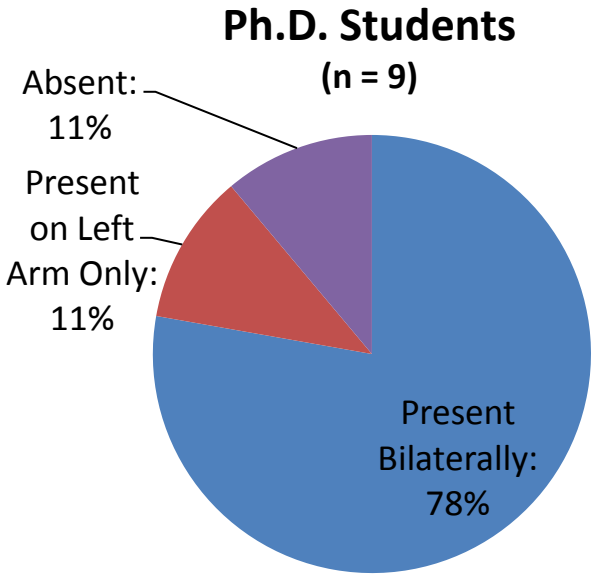
Asian
E: 95.5%
O: 100%
P = .224, ns

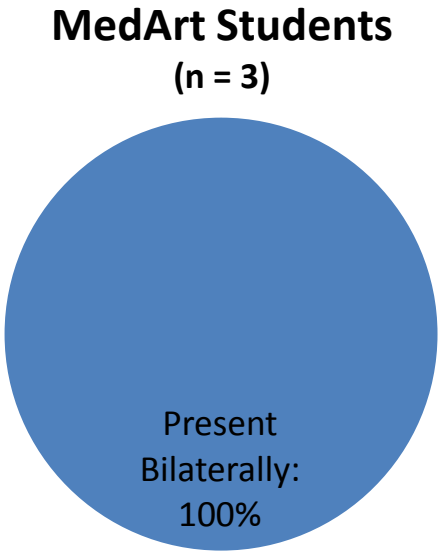
Ethnic Groups (small n): Ashkenazi Jew (1, A); Hispanic (2, PB); Middle Eastern (1, PB), Mix (1, PB); Turkish (1, PB)

Degree Program Distribution









Relevance

Palmaris Longus is a weak flexor of the wrist and elbow, tensor of the palmar aponeurosis, and potentially abductor of thumb (Gangata et al, 2010)

Presence of PL may be associated with higher risk of carpal tunnel (Keese et al, 2006).

- Or not (Saied & Karamoozian, 2009).

PL tendon has been harvested as graft to:

- replace extensor tendons in patients with rheumatoid arthritis (Chu et al, 2008)
- treat bilateral facial competency and oral incompetence in patients with muscular dystrophy (Laina & Orlando 2009)
- reconstruct the glans penis in a patient who had a penectomy (Salgado et al, 2009)

References

1. Sebastin SJ, et al. (2005) The Prevalence of Absence of the Palmaris Longus – A Study in a Chinese Population and a Review of the Literature. *Journal of Hand Surgery* 5: 525-527. Link
2. Agarwal P (2010) Absence of the Palmaris Longus Tendon in Indian Population. *Indian Journal of Orthopaedics* 44: 212-215. Link
3. Additional Reading

Thank you for completing the survey!