

Thonic Innovation

Thonic Bandage: A new application technique as a first step towards controlled compression?

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We bring Value Innovation to lymphoedema, lipoedema and chronic oedema care

The pressure produced by a compression bandage can be predicted according to Laplace's Law *

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N= number of layers

T= bandage tension (kgf)

P= sub-bandage pressure (mmHg)

C= limb circumference (cm)

W= limb circumference (cm)

T and N are
Operator-Dependent

$$P = \frac{T \times N \times 4630}{C \times W}$$

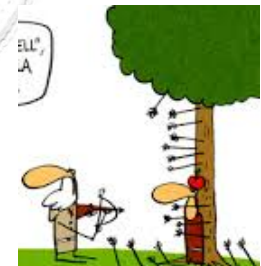
Conclusion:

The force of a compression bandage is not in the bandage itself but in the hands of the person applying it.

Average Pressures
(Inter-operators)

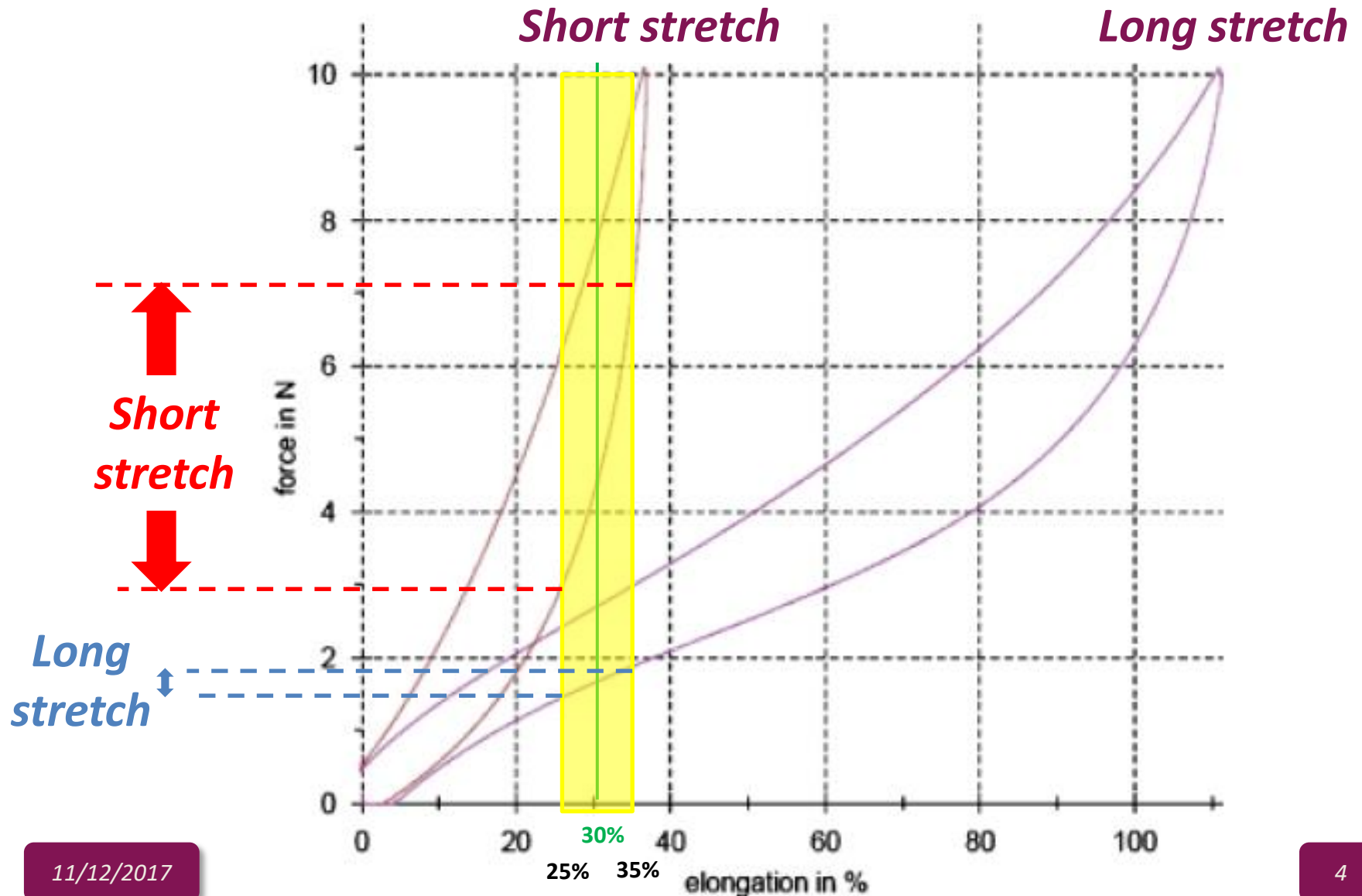


Dispersion
(Intra-operators)



Dosage ?

Short stretch vs Long stretch (theory)

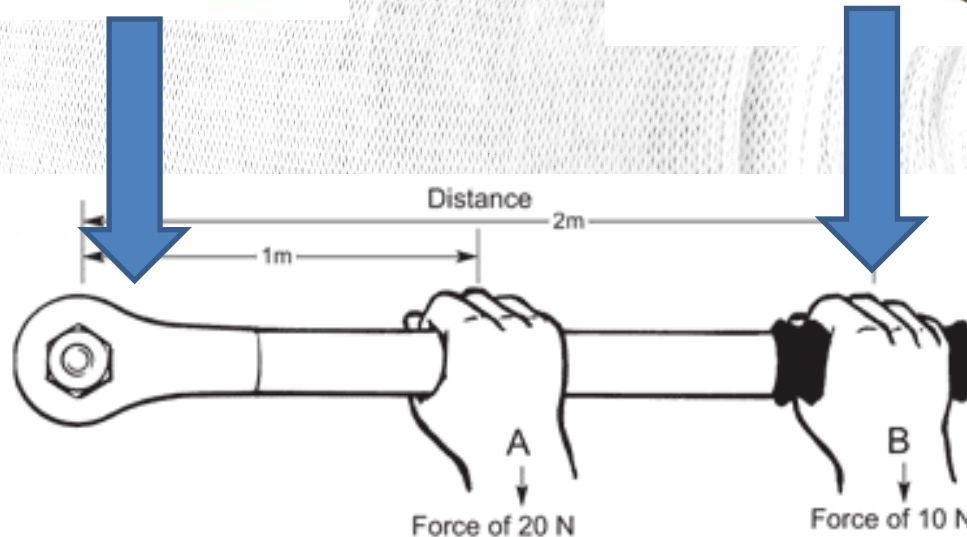


Application techniques - Torque

« Pre-stretched »



« Relax »



The ReproComp study



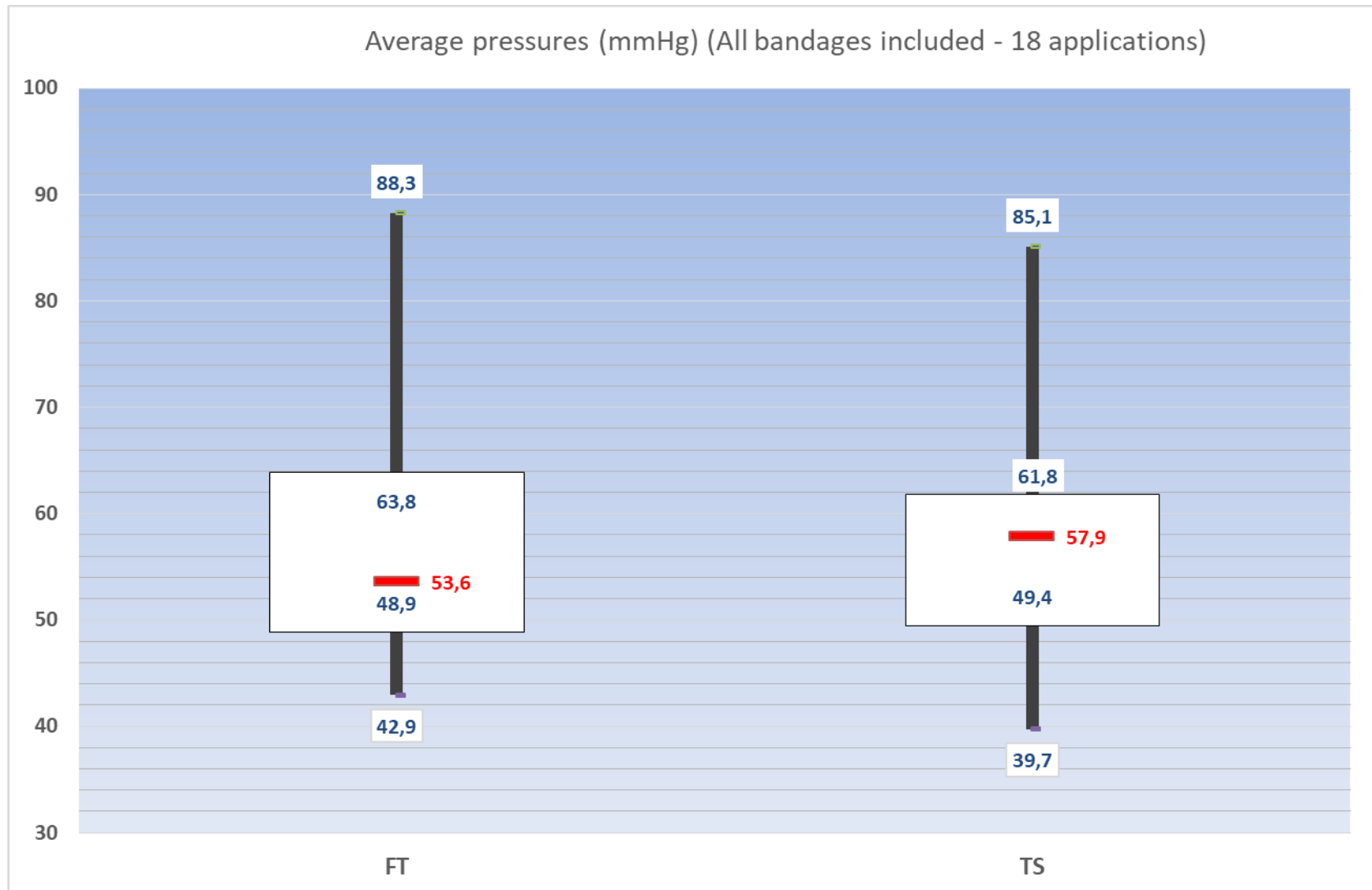
		4 Groups of applicators			
Bandages (8cm)		First-timers	Patients	Primary care staff	Secondary care staff
Long stretch	LS1	3 applications (Force 2)			
	LS2	3 applications (Force 2)			
Short stretch	SS1	3 applications pre-stretched 3 applications not pre-stretched			
	SS2	3 applications pre-stretched 3 applications not pre-stretched			

Bandages	Force 1		Force 2	
	Stretch	Overlap	Stretch	Overlap
LS1	40%	50%	40%	75%
LS2	30%	50%	50%	50%

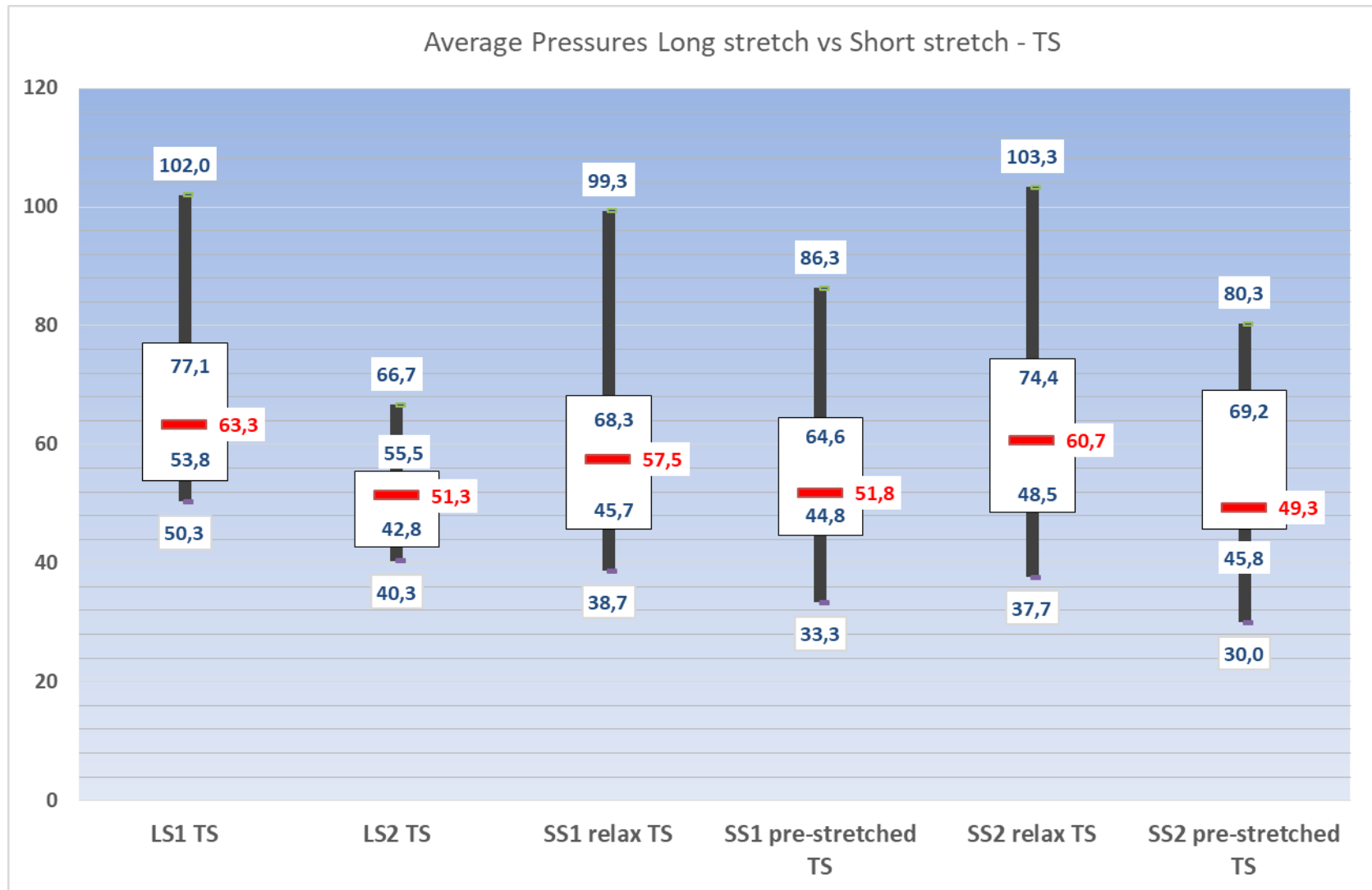
Reminders

1. *The pressures are taken on a hard plastic leg which means the pressures measured:*
 - ✓ *Have no clinical relevance*
 - ✓ *Can only be compared with those achieved in this study.*
 - ✓ *Are static*
2. *Our main criteria is the capacity for an operator to reproduce the same level of pressure with the same bandage. The term **Dispersion** will be used as the difference between the highest and lowest pressure of the 3 measurements.*
3. *The preliminary results presented hereafter are based on the applications by:*
 - ✓ *15 First-timers (FT)*
 - ✓ *12 Secondary Care Trained Staff (TS)*
4. *Additional First-timers and Secondary Care staff as well as Patients and Primary care staff will be included in the next months.*

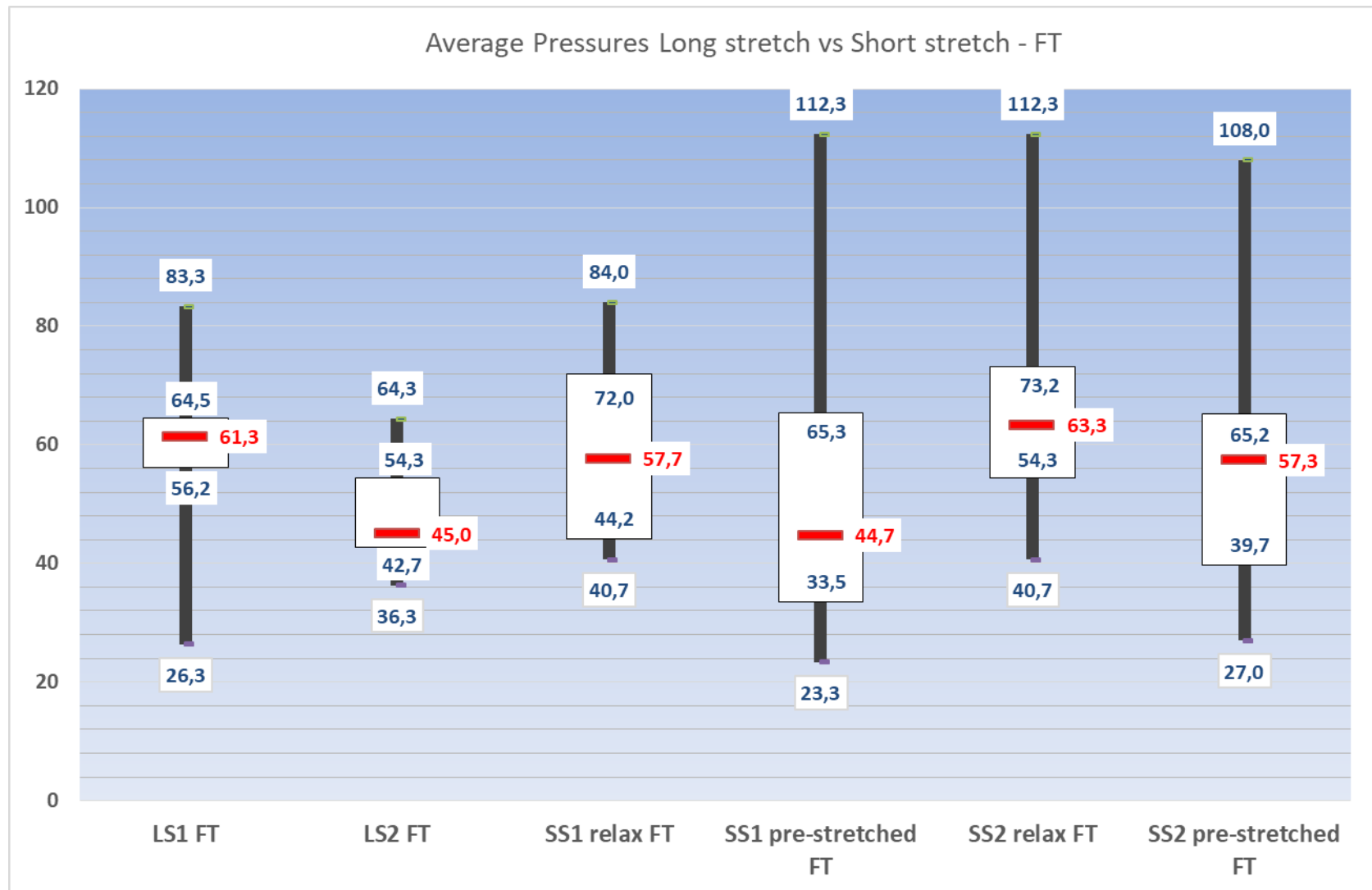
Average pressures – Inter-operator



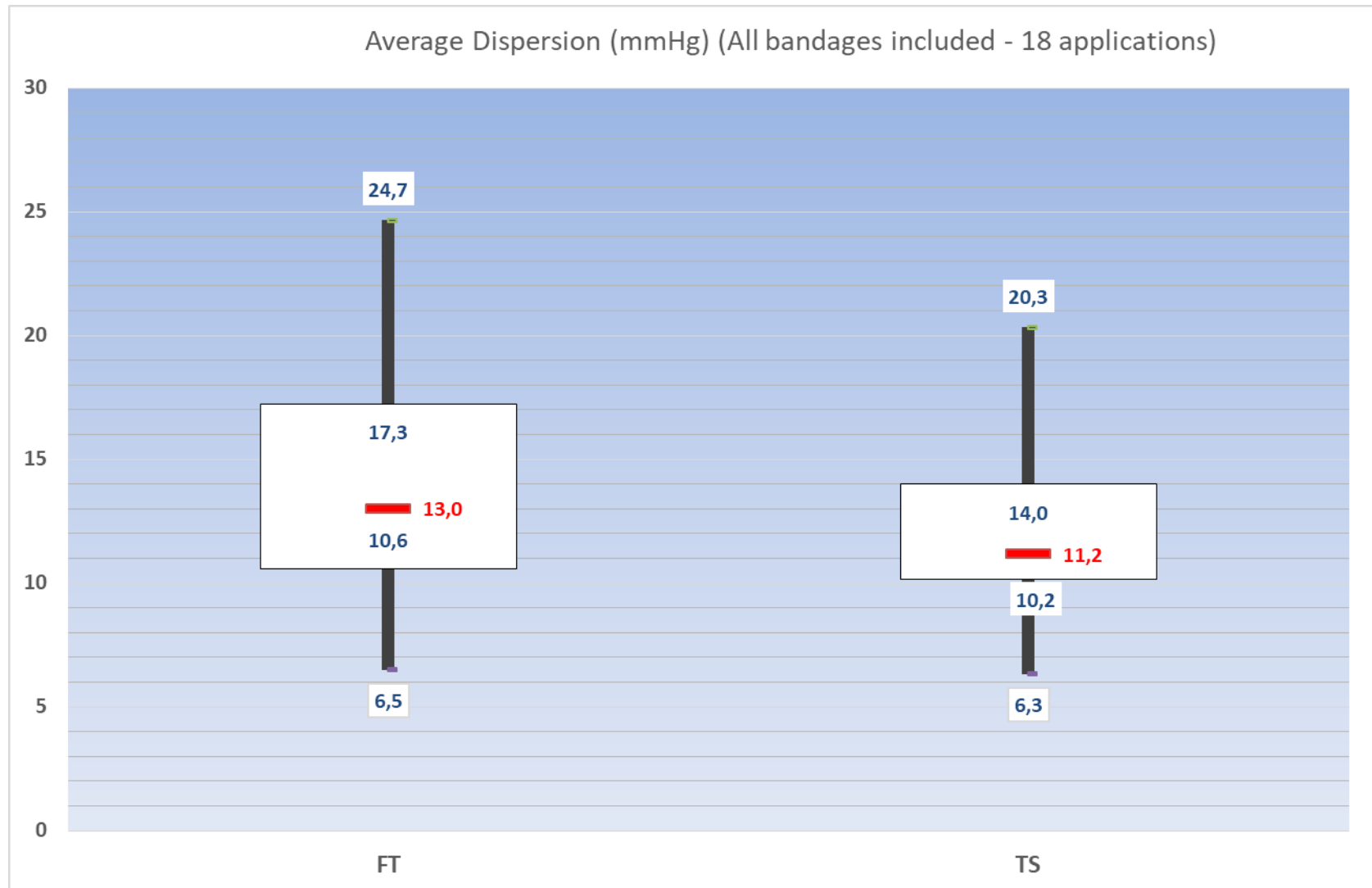
Average pressures – Inter-operator



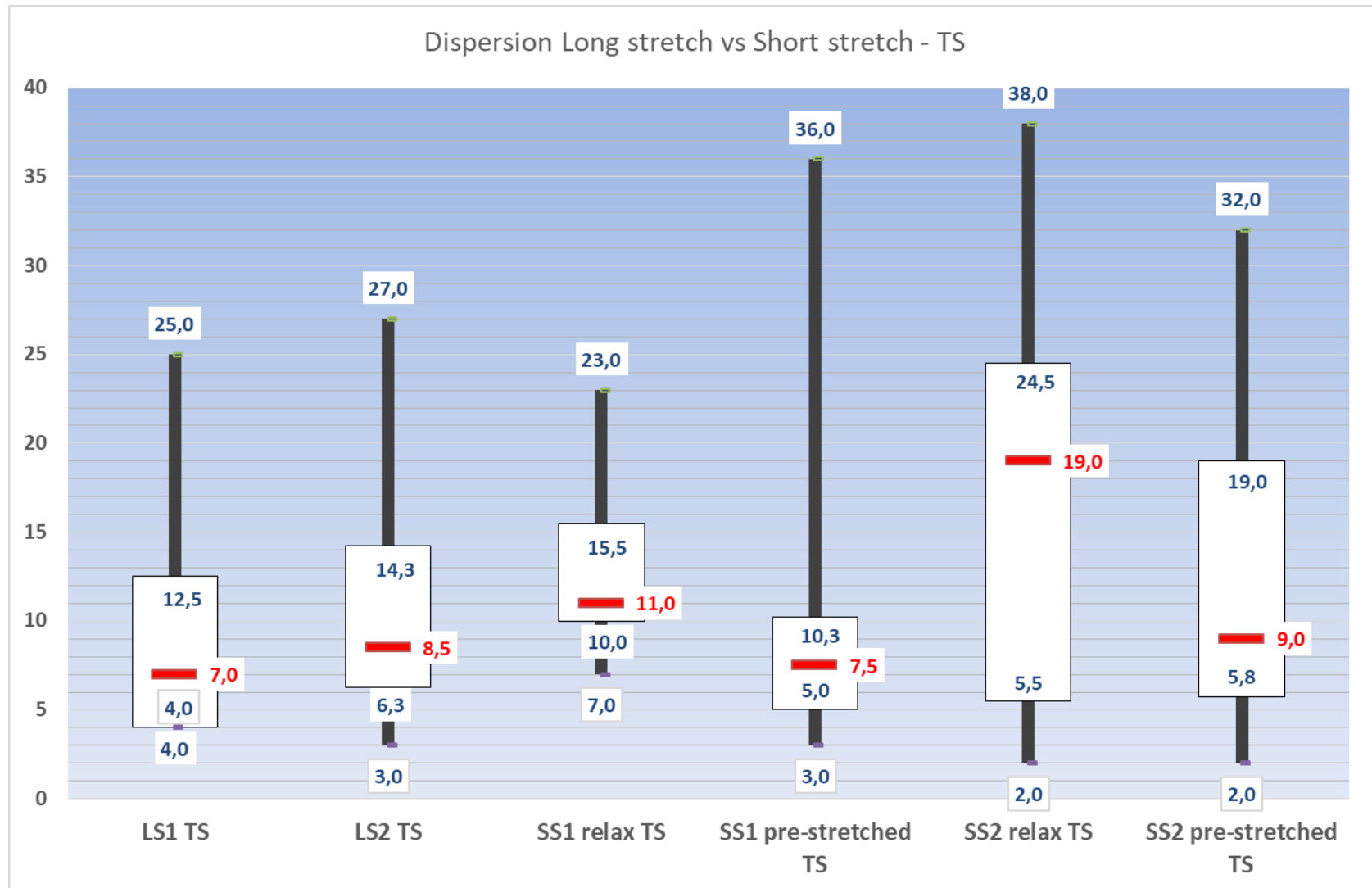
Average pressures – Inter-operator



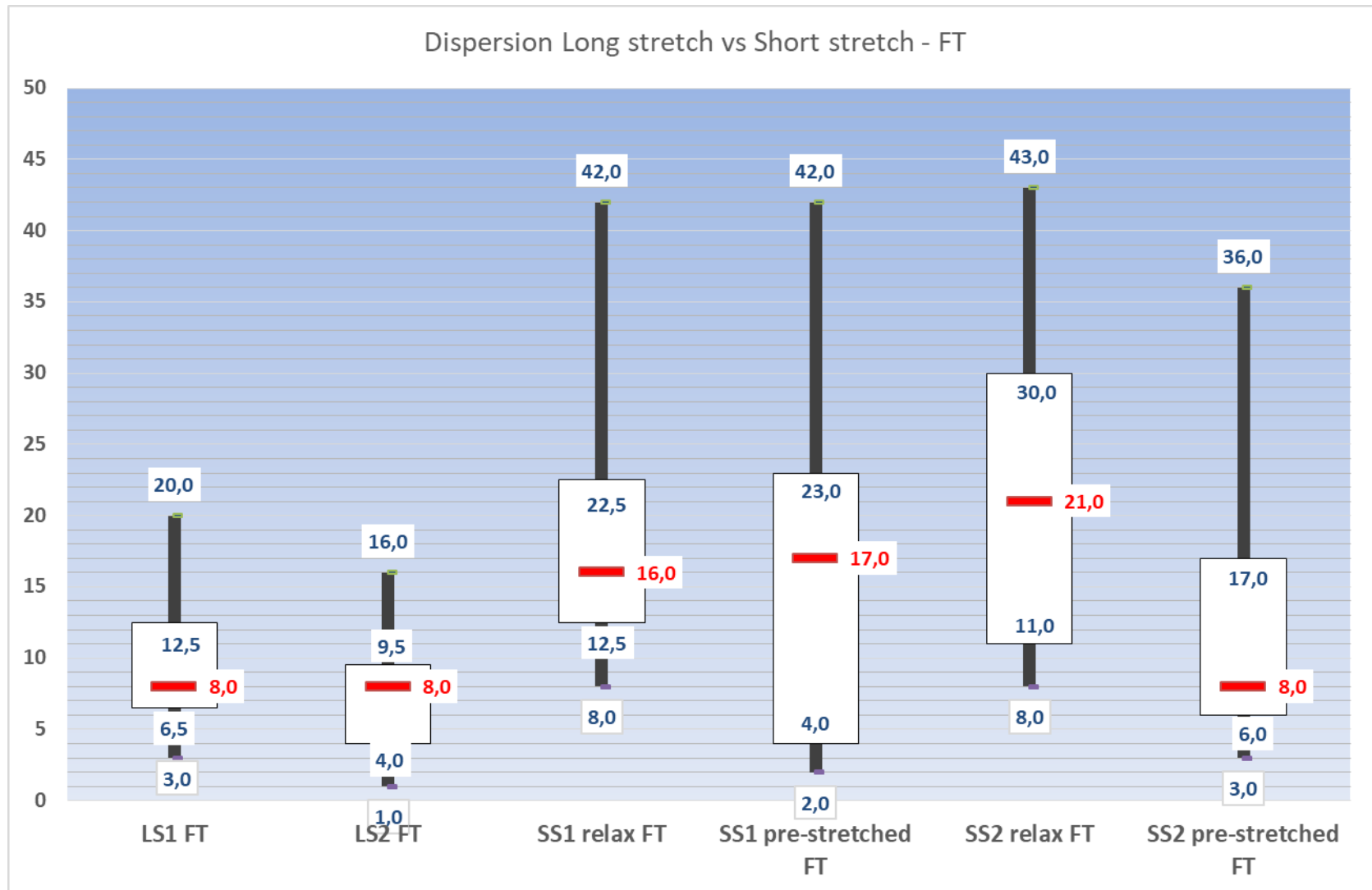
Dispersion – Intra-operator



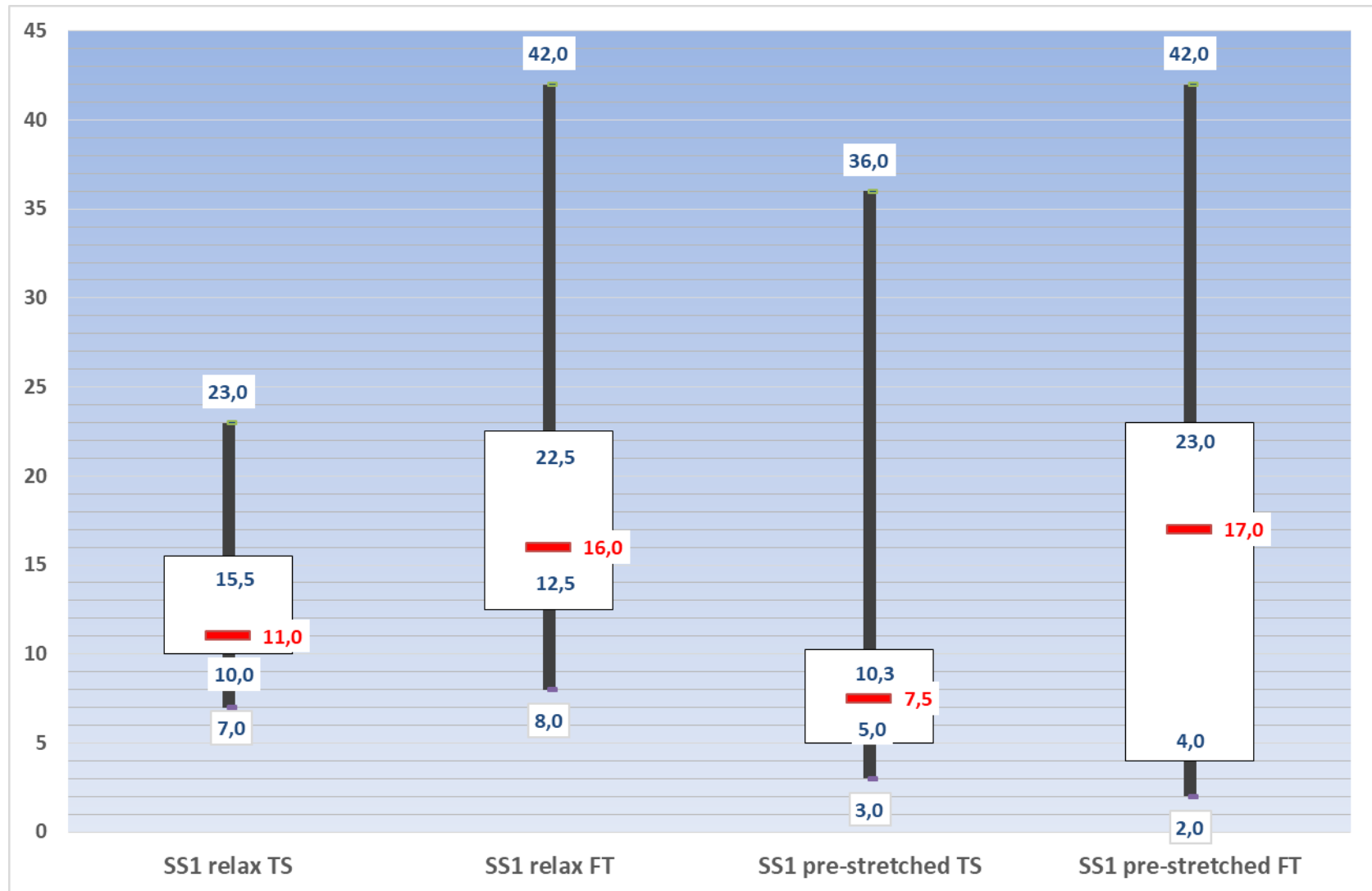
Dispersion – Intra-operator



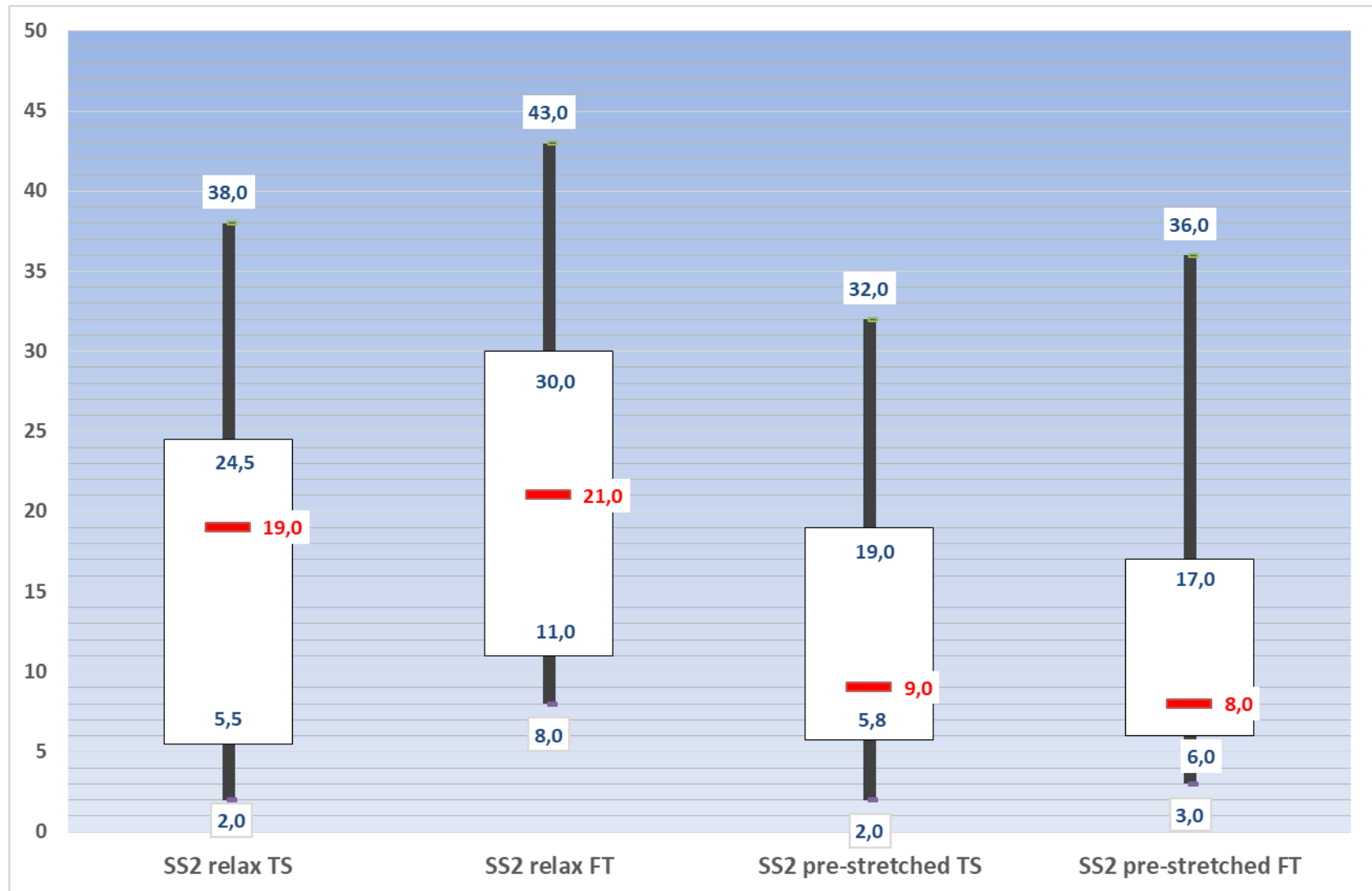
Dispersion – Intra-operator



Dispersion – SS1



Dispersion – SS2



Thonic Bandage

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To combine the respective **benefits** of **elastic** and **inelastic** materials while **getting rid** of their respective **inconvenients** to design a :

- short-stretch
- single-layer
- multi-component

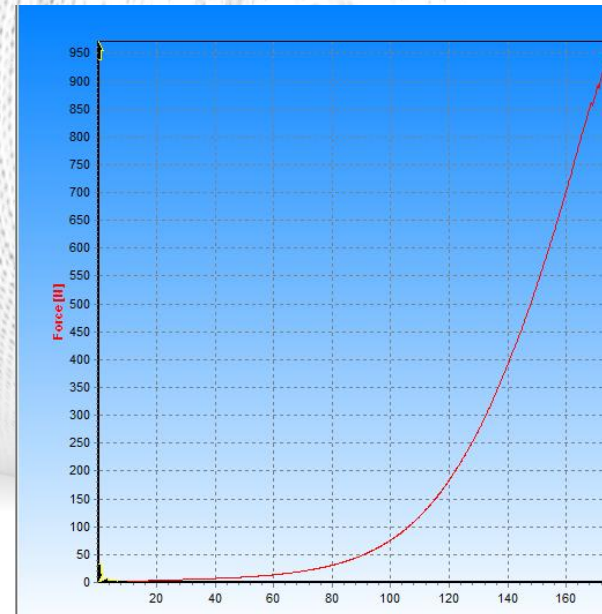
bandaging system that is simple and safe to apply !

Standard long stretch elastic bandage

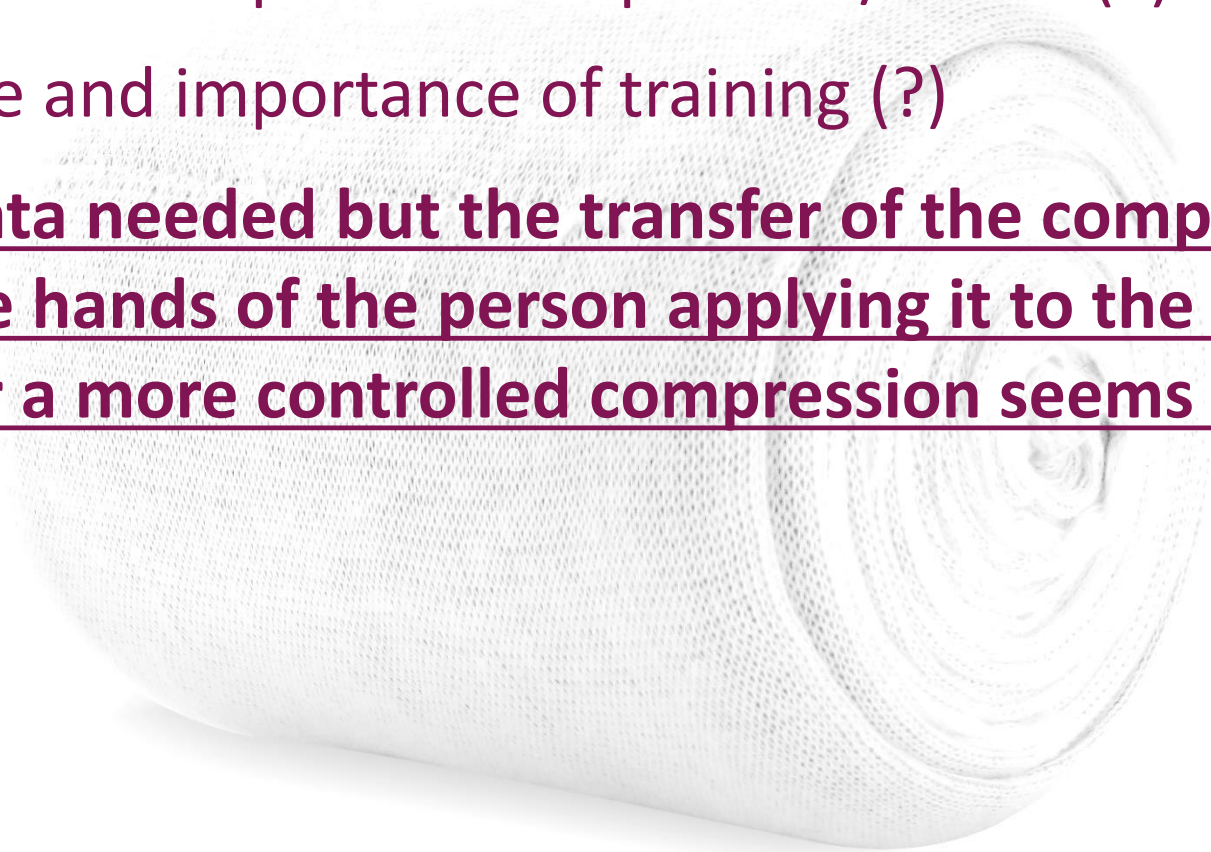
Standard inelastic cotton bandage



Seams



- Influence and importance of practice/habits (?)
- Influence and importance of training (?)
- More data needed but the transfer of the compression from the hands of the person applying it to the bandage itself for a more controlled compression seems to be possible



Final conclusion

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Products

- Thonic bandage 2.0 early 2018
- New patent filed last week



Studies

- ReproComp study
- Bandocele study
- Study for Reimbursement in France
- Bariatric patients study

Projects

- Measure
- Dosage



Thank you very much for your attention !

Please do not hesitate to contact me

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