Metal handles
→ a better grip than silicone

Comparison SQ.line mallet vs. Aesculap silicone type

Aesculap SQ.line

Aesculap silicone type

Key Facts at a glance:

Comparing grip forces, the **SQ.line mallet** offers a **safer grip** than the silicone type as follows:

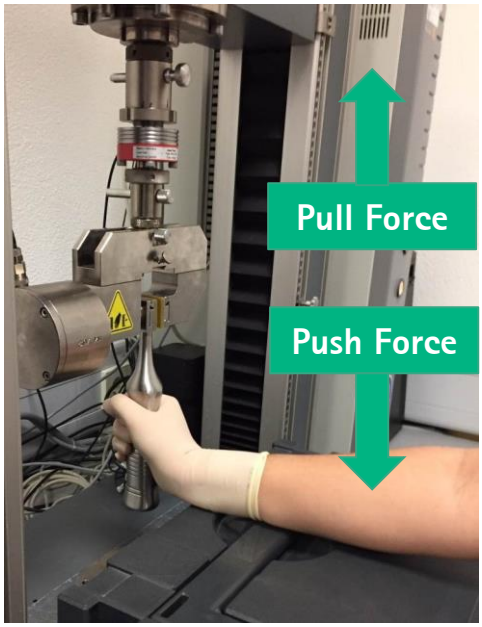
- **Safer grip of SQ.line…**
  …regarding distal end (pull force): >**10%**
  …regarding proximal end (push force): **70%.**
- Regarding **rotation** (torsion force), the metal and silicon types are **at the same level**.
- **There are improvements concerning grip properties of the metal version.**

The innovative design of the SQ.line handles (new handle shape, contours and textural features) require less gripping force to achieve comfortable control during use. This translates to **less fatigue** on the operator!

Executive Summary - Test performance:

Characteristics of testing persons:
10 testing persons (5 male , 5 female, age 20-54, glove size S+M+L)

Test 1: Push & Pull Forces
The different mallets, with handle designs in "metal" and "silicone", were fixed in a machine which measures axial push and pull forces. For this test, each handle was lubed with Vaseline to simulate the slippery condition of surgical use.
The force in Newton (N) was tested and recorded for the point at which the mallet began to slip within the hand of the testing person.



Test results:

	Ø Pull force	Ø Push force
Aesculap silicone handle	74 N (100%)	55 N (100%)
SQ.line metal handle	83 N (113%)	94 N (170%)

Test 2: Torsion force

The different mallets were fixed in a machine which measures torsion forces.
Again the handles were lubed.
For each handle, the force in Newton meter (Nm) was tested and recorded for the point at which the mallet starts to slip in the hand of the testing person.

Test results:

	Ø Torsion force
Aesculap silicone handle	1.702 Nm (100%)
SQ.line metal handle	1.756 Nm (103%)