**Info for readme file to accompany article in *Clinical Biomechanics***

Archived data pertaining to article:

Fletcher, J., Ehrhardt, B., MacLeod, A., Whitehouse, M., Gill, H. & Preatoni, E. 2019. Non-locking screw insertion: No benefit seen if tightness exceeds 80% of the maximum torque. *Clinical Biomechanics* <https://doi.org/10.1016/j.clinbiomech.2019.07.009>

Sheet 1 - Experimental stripping tests

The data for finding the experimental stripping torque for each screw hole, compared to the experimental predictions.

Test number – sample tested

Cortical thickness 1 (mm) – measurement of pilot hole depth from proximal side

Cortical thickness 2 (mm) – measurement of pilot hole depth from distal side

Average cortical thickness (mm) – average of cortical thickness 1 and 2

Maximum experimental stripping torque (Nm) – maximum torque value recorded in destructive testing

Maximum theoretical stripping torque (Nm) – based on Eq. 1

Sheet 2 - Variables for theoretical equation

The values for the theoretical equation used to predict the stripping torque for a screw hole of depth ‘L’.

TYS – Tensile Yield Stress

Pi - π

Dp - Pitch diameter

L - Length of screw engagement

r - Pitch radius of screw

p - Reciprocal threads per unit length

f - Coefficient of friction

Do – Outer diameter of screw

Sheet 3 - Compression during insertion

All recorded values for compression recorded against tightness (torque as a percentage of the stripping torque), ranked by tightness.

Sheet 4 – Final compression and pullout

Test number – number of the sample tested

Thickness measurement 1 (mm) – measurement of pilot hole depth from proximal side

Thickness measurement 2 (mm) – measurement of pilot hole depth from distal side

Mean thickness (mm) – average of cortical thickness 1 and 2

Actual insertion torque (Nm) – torque applied to inserted screw

Maximum theoretical stripping torque (Nm) – based on Eq. 1

Actual insertion torque as % of theoretical maximum

Raw Compression Force (N)

Normalised compression force (N/mm) – Raw compression force divided by mean thickness

Raw pullout force (N)

Normalised pullout force (N/mm) – Raw pullout force divided by mean thickness

Sheet 5 - Summary of compression data

Final compression values (N/mm) grouped in tightness deciles.

Sheet 6 - Summary of pullout data

Final pullout values (N/mm) grouped in tightness deciles.