Pressure Mapping

Pressure mapping is a specialised measurement technology used to measure and visualize the contact pressure distribution between the human body and a supporting surface and equipment interface, e.g. person, chair or sling. Care & Independence commission independent pressure mapping experts to conduct such trials to ascertain sling performance and help identify areas of risk. The subsequent scientific data insight has enabled Care & Independence to develop solutions and vastly improve upon the areas which indicate tissue viability risks, pain or other health concerns to the equipment user.

RESULTS FOR GLOVE™ IN-CHAIR LITE (GIL)

The data clearly shows that the introduction of the GLOVE™ In-Chair LITE sling does not impair user comfort - the pressure remains evenly and consistently distributed across the users seat with no evidence of high risk areas.

In the baseline mapping tests where the subject was sat clothed direct upon both cushion types, a clear low pressure result was returned as indicated by the expanse of blue colouring. [Fig. 1 & 2]

Introducing the GIL actually **decreases the peak pressure** on the Polyair® and slight increase to Integrity® is nominal. [Fig.3 & 4]

After ten minutes sitting in the sling, the pressure peak results **remain lower than the baseline map** for Polyair® and only show a marginal 15mmHg increase from the baseline with the Integrity® cushion, remaining well within the comfort zone. [Fig 5 &6]

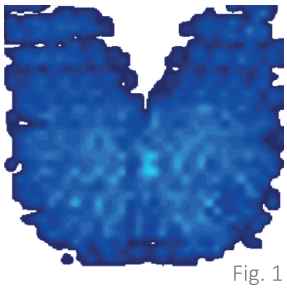


Fig. 1

BASELINE MAPPING

10 MINUTES

SUBJECT SAT DIRECT ONTO CUSHION WITHOUT SLING

PEAK 75 mmHg

AVERAGE 30 mmHg

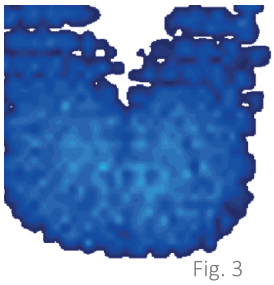


Fig. 3

POLYAIR® + GIL

2 MINUTES

SUBJECT SAT DIRECT ONTO CUSHION WITH SLING

9 mmHg 66 mmHg

2 mmHg 32 mmHg

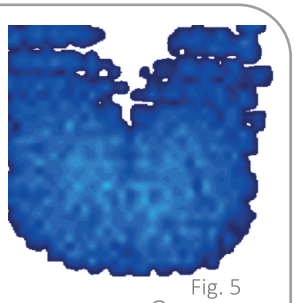


Fig. 5

POLYAIR®+ GIL

10 MINUTES

SUBJECT SAT DIRECT ONTO CUSHION WITH SLING

10 mmHg 68 mmHg

3 mmHg 33 mmHg

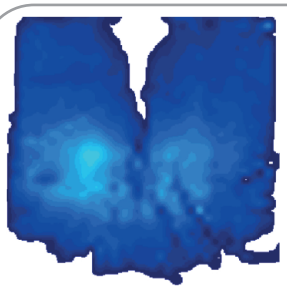


Fig. 2

BASELINE MAPPING

10 MINUTES

SUBJECT SAT DIRECT ONTO CUSHION WITHOUT SLING

PEAK 76 mmHg

AVERAGE 31 mmHg

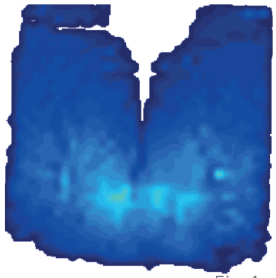


Fig.4

INTEGRITY® + GIL

2 MINUTES

SUBJECT SAT DIRECT ONTO CUSHION WITH SLING

5 mmHg 81 mmHg

31 mmHg

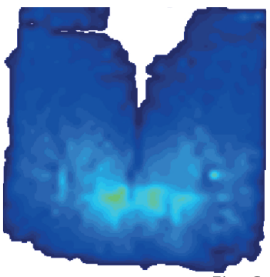


Fig. 6

INTEGRITY®+ GIL

10 MINUTES

SUBJECT SAT DIRECT ONTO CUSHION WITH SLING

15 mmHg 91 mmHg

3 mmHg 34 mmHg

MEDICAL CUSHION TYPE:
1. PolyAir® comfort cushion
2. Sumed Integrity® Static High Risk

SUBJECT: Male, 5'6", 82.5kg
DATE OF TEST: April 2021
TESTER: Sumed International (UK) Ltd

*mmHg stands for millimetres of mercury and is used as a pressure measurement

151
115
78
42
5
MmHg* scale

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