

Crush Test Results Analysis

I have done some initial number crunching – only using my trusty abacus and slide rule so it is little better than guess work. There are, however some interesting findings.

A quick and oft repeated question: What about strength to weight? Won't that affect the results?

Answer: My previous study measured this and there is a strong correlation between the two however I am not measuring this. I am proposing that regardless of your weight if you crush greater than 60kg you therefore have a flexor/extensor imbalance and are then more prone to injury. I am measuring the injury incidence. Any other results are just for fun. Happy to provide the source data if anyone fancies a go at doing a bit more in depth analysis.

40 climbers tested: 34 male, 6 female

Age range: 23 – 44 years

Years climbed: 1 – 25 years

Grade climbed: F6a – F8a

Correlations

- Males have a stronger grip strength than females
- The longer you have climbed the better you are (to a point – that point being F7b)
- That's it

Grade versus injury incidence comparisons

- 6a – 11 injuries per 100 years of climbing
- 6b – 21 injuries per 100 years of climbing
- 6c – 30 injuries per 100 years of climbing
- 7a – 46 injuries per 100 years of climbing
- 7b – 32 injuries per 100 years of climbing
- 7c – 26 injuries per 100 years of climbing
- 8a – 32 injuries per 100 years of climbing

So, what does this mean:

- If you climb F6b or less you are unlikely to sustain a forearm/hand/finger injury
 - 17 incidences of injury over 100 years
- If you climb F6c/F7a you are very likely to be injured
 - 42 incidences of injury over 100 years
- If you climb 7B or more your likelihood of injury then drops again
 - 32 incidences of injury over 100 years

Strength versus grade comparisons: here I am looking at the number (and proportion) of climbers who crush greater than 60kg

- 6a – 17%
- 6b – 12%
- 6c – 24%
- 7a – 28%
- 7b – 17%
- 7c – 33%
- 8a – 66%

Those of you might have already guessed that there were only 10 top end crushers and that they were evenly spread across the grades which shows that there is a minimal correlation between crush strength versus grade climbed.