**Peak Power or Mean Power... What parameter should I measure and why?**

There is no doubt that peak power is a very popular measure in much of the published literature relating to power measurement in athletes. But why is this? It is certainly a much simpler measurement to take, just read the highest value on the power curve. In fact this is often the reason quoted in research methodologies\(^1\), it is simpler and quicker than manually marking up the concentric lift phase of each individual rep - but is it the best measure to reflect the performance of the jump?

Often too, only a single rep is studied for the same reason, this is too time consuming. This means that the performance of the athlete being studied is being boiled down to a single sample of a single effort - simply because, due to limitations in the measurement technology used, this is the easiest measure to make! The literature actually suggests that mean values of multiple reps are a better measure\(^2\).

GymAware solves the problem of difficult markup by automating it as shown below.

---

\(^1\) peak power

\(^2\) mean power
Looking at the graph above, the grey bands show where GymAware has detected the concentric lift phase for two olympic lifts - Power cleans (above) and two concentric jumps (previous page). The large power spikes in the power cleans are caused by the rapid deceleration as the bar hits the floor.

Note: Only the actual effort is detected, not just the min and max displacement - This is GymAware’s unique rep detection algorithm at work. The catch phase is not included in the concentric measure.

So now researchers have a tool that enables them to study mean power for multiple reps with no additional effort.
