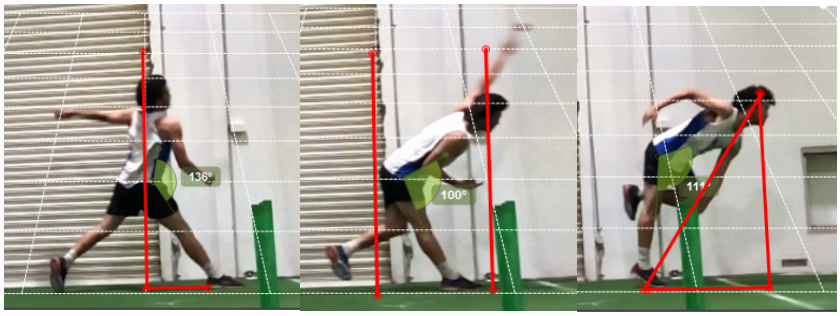
Lochie came to us after having suffered from multiple stress fractures. He wanted to find out if there was anything wrong with his bowling action that was causing this.

After conducting a biomechanical analysis for his action we identified 2 main contributors in his action that would most likely be contributing to his stress fractures:

1. *Excessive trunk flexion*: On conducting the analysis we found that there is an excessive amount of trunk flexion at the point of release that would result in the lower back taking on a major load.



2. *Excessive lumber rotation*: we also found that Lochie was rotating is lower back at the time of release. Now because there are two different movement in two different planes at the time when the ground reaction forces are at having the maximum impact. Bowling with this action for a long time is bound to take a toll on the back.

Solution: Excessive trunk flection and rotation could be due to a weakness in the abdominal and/or glutes. Because of weakness in these muscles the back now has to overcompensate for their weakness. On conducting a strength test we found out that for Lochie it was mostly his glutes that needed strengthening. We designed a program for him to strengthen his gluteus medius and gluteus minimus which are the stabilization muscles as well as his gluteus maximus for maximum amount of explosive strength which would help him power through the crease with minimal effort.

Follow up: On a follow up after 6 weeks we saw a 12* reduction in his trunk flection showing us that the program was working and Lochie with slight adjustments in his bowling action could now bowl with a reduced risk of injury.