

Place on table of station D
and inform AO Skills Lab
Director about the new cubes

Mechanics of bone fractures—new cubes

Information for Faculty



New cubes with improved features have been developed for station D to simulate **deformation and fracture under axial load**. Cubes come in plastic bags.

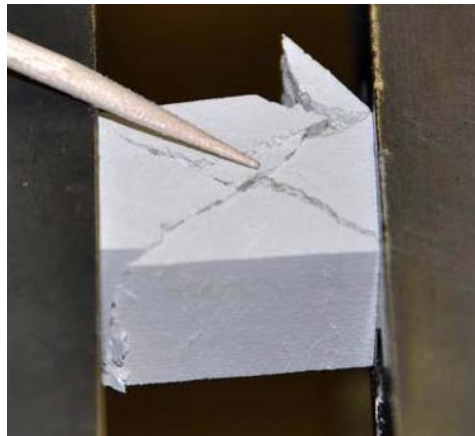
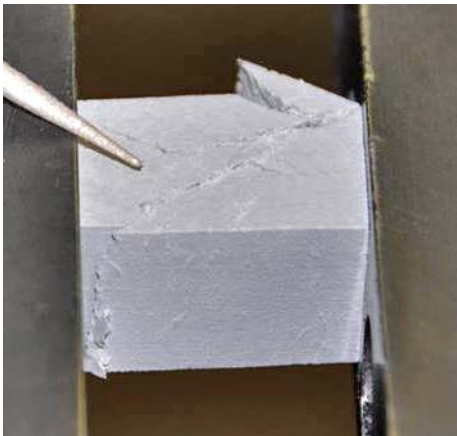
Important features:

- 1) Light grey color
- 2) Improved visibility of the development of the fracture pattern
- 3) New material better simulates biological behavior of bone
- 4) Fracture pattern develops *either* on the side *or* on the top of the cube (oblique, Y- or X-shaped)
 - Make sure to **compress cubes carefully and slowly**
 - **Stop the compression frequently** to show participants how the fracture pattern develops (see pictures below)

1) Ask participants to compress the cube carefully and make them stop when the first cracks appear.

Note: The fracture pattern develops either on the side or the top of the cube.

2) Make participant stop when the first cracks become visible.



3) Ask participants to continue to rotate the lever slowly and stop often. Ask participants to observe the development of the Y- or X-shaped fracture pattern. The more axial compression is applied, the more the fracture pattern develops.



4) Finally, remove the cube from the vice and show participants the typical fracture pattern resulting from axial compression.

5) After the exercise, put the fractured pieces back into the plastic bag.

