

## Determining Relative Flexibility

### The “Step Up” Test

**To properly perform the step up test, do the following:**

1. With the patient sitting, have them sit at the edge of the seat with their hip, knee and ankle at 90 degrees. It is best to have the thigh off the chair when either casting or determining relative flexibility .
2. Also, just as in casting, you want the patient to be in their natural angle and base of gait. To achieve this, simply tell the patient to relax and “let their thigh go where it wants to go” naturally. In other words, do not allow them to “correct” or straighten their thigh arbitrarily as they will firstly not be relaxed, and secondly they will not be in correct angle and base alignment.
3. Now, with the patient’s foot flat on the floor, have them lift up their heel up as high as they possibly can while maintaining their met heads on the ground. Some people are strong enough to do it themselves, but some require you to hold their met heads down and assist them by lifting up under their heel while they attempt to elevate their heel as high as possible. The picture below left shows a patient doing this himself.
4. When you are sure that their heel is as elevated as possible, note the relative arch height and mark it on the design form as described in this manual. You can use a marker or highlighter or you can simply circle the appropriate numbers.
5. Once you have the step up test results marked on both the right and left diagram, now have the patient stand up and take six steps in place. This does two things: 1. you get them to relax and go into their natural angle and base of gait to be used in the next section of the design form, and 2. many people guard or hold their arches up when they know you are looking at them. The “marching steps” usually cause them to go into their true “relaxed” position. In any case I always ask “are you relaxed?” and look for any “guarding” or muscle tightness in the thigh or calf which would indicate they are not in their relaxed position and are guarding. When they are relaxed and in their most “fully flattened” full weight bearing position, go to the last step.
6. Now mark what the result of them standing in full weight bearing was on the design form. In almost all cases, this “second circle” or mark you make on the design form will be below the “first circle” test results. If it is not, you have a seriously rigid foot as it did not change at all from full height non weight bearing to full weight bearing and I will want more details below in the notes section as this foot will need some additional shock absorption etc... Again, this rarely occurs but if it does, you will truly only have one circle on each of the graphs unlike the pictures below demonstrate. I would mark the position on the left a “two” and I would mark the position on the right a “0”.

