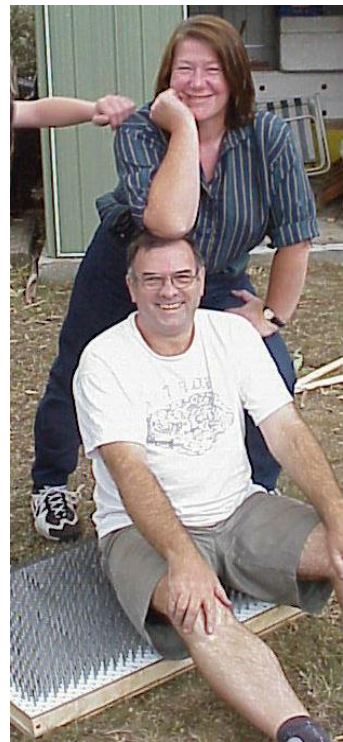




# THE BED OF NAILS



## How and Why It Works

Squat at the edge of the bed of nails and sit down on the nails – don't press on the nails with your hands. Then lie down fully on the nails – don't press your head on the nails at any time. A feeling of wonder will come over you, soon replaced by a feeling of futility and ordinariness. Never mind, enjoy the rest of the day.

There are lots of large nails in the bed of nails. When you lie on it, your body touches about half of the nails – that's about 750 – so for a 75kg body each nail will press with a barely noticeable force of about 100 grams. Because the nails are large (4-inch), the points are not particularly sharp. You can press a balloon onto the nails without it bursting.

NOTE: You can't stand on the nails, or press on the nails with your hands or feet when you sit down – there would be too much pressure spread over only a few nails. And even when you lie on it you mustn't rest your head with any force.

## How to Make a Bed of Nails

This can be a good school project – about 12 man-hours is required. Its mass is 20kg, mostly due to the nails. The materials required cost about \$170 -

- Two sheets of peg board and one sheet of 9mm plywood, 900mm by 600mm
- 4 metres of 42x19mm batten and 2 metres of 42x12mm batten
- 20kg of 4-inch flat head nails – bright steel (galvanised are harder to get through the pegboard holes). A large hardware store should have this much in stock. If you buy four 5kg boxes, check samples to see that the nails really are identical. The nails should fit snugly in the holes of the peg board (both were 4.5mm diameter in our model)
- About 40 wood screws (8-gauge) with flat-bottomed heads, and wood glue
- Four heavy-duty handles for carrying it about
- Simple tools: wood saw, screwdriver, hammer, hand drill with 4mm bit

Clamp the 3 boards together and trim two edges so they become the same size.

Cut batten to make a rectangular box that fits to the inside edges of the board. Screw the box together at the corners. Glue and screw it to one of the peg boards. Attach strong handles to the sides of the box – these will be handy for carrying it about.

Push a few pairs of nails up into the box and drop in some lengths of the thinner battens. These will stop the middle of the box from sagging or bulging out. The thinner battens must fit between diagonal rows of nails so that they don't block any holes. Going along the diagonals allows the inner battens to be as thick as possible - such is the power of geometry. We used two long ones and two short inner battens, but any arrangement will do. Mark the positions of the inner battens on the outside of the box, or you'll lose where they were.



Place the second peg board over the nails and press it down. Make sure the holes of both peg boards are lined up (the nails will ensure this). Screw both peg boards to the edge and middle battens (one screw per side and one screw per middle batten will do, for each peg board). These are just to hold things in place - more screws will be added through the plywood sheet at the end.

Turn the box over and support it on two bricks. Now push a nail through every hole, starting with the diagonals alongside the internal battens. This takes several hours but with practice you can press a nail through the first peg board, find the hole in the second peg board and push it through. Tap it with a small hammer – very little force is needed.

When most nails are in place remove the bricks and fill all the holes with nails. Check that none of the nails has a sharp burr on its tip – the points of 4-inch are really quite blunt.

With all the nails fully in place, place the plywood sheet over the nail heads and screw it into place. This needs a good number of screws – 3-4 along each side and 3-4 along each inner batten. Drill pilot holes through the plywood and the lower pegboard so the screws bite into the side and inner battens. The plywood will keep the pegboards in place and stop the nails from sliding back out. That's all there is to it!



One person, or two people walking in step, can easily carry it about. Point the nails away from your body when carrying it, and be careful not to let anyone stumble or anything fall onto the nails. If carried in the boot of a car, put a spare sheet of plywood or a heavy rug over the nails so you can put things on top of it. It's easier to get onto the bed of nails if it stands on two milk crates.

Australian Skeptics Inc.  
Tel (free) 1800 666 996

[www.skeptics.com.au](http://www.skeptics.com.au)

Vic Skeptics

[www.skeptics.com.au/vic](http://www.skeptics.com.au/vic)

GPO Box 5166  
Melbourne 3001

