

Why is the Oov Important?

IMPORTANT ASPECTS OF THE OOV

- Comfortable
- Flexible
- Unstable
- Supportive
- Dynamic
- Proprioceptive

The material in the Oov was designed to compress to approximately 50% of its volume to accommodate different structures, for comfort, and to enable it to push back against the user.

Comfortable

Comfort is vital. To relax and stretch tight areas of the spine, the user needs to be relaxed on a soft and comfortable surface. If it's hard and unyielding, the user will not be able to relax to release their muscles. If someone is in pain, they are usually stressed and their sympathetic nervous system stimulated.

Supportive

The spine is a series of curves. It would make sense that we would then lie on something that is not flat, but has curves in it to support our natural curvature. Supporting these curves allows for a more functional starting position for the spine. So as the user relaxes, their spine is supported in a more anatomical position.

Flexible

It needs to move!!! A static device just doesn't cut it. Our spine is able to move in all three planes, so the device must mimic this movement. It also needs to be flexible to fit to the user. This is a way to get the device to mould itself to the user, customizing itself every time you lie down, but it must return back to its original position, and not take on the user's patterns or posture. So it needs also to have a memory.

Proprioceptive

The awareness of where our body is in space and activating the cerebellum is extremely important in rehabilitation. Self awareness of which parts of the body are unstable, restricted, and how these areas correlate to areas of pain, are invaluable to help change postural and movement patterns in individuals.

Unstable

The device needs to move. To initiate the user's own stabilisers, the device has to be unstable. The pelvis should be able to move in all 3 planes (as it does in standing). We don't often walk or lift from moving ground, but our spine is constantly moving and compensating for our movement. The idea of lying on an unstable device is to activate the musculature from inside out.

Dynamic

The material had to be designed never to settle or rest, constantly challenging the nervous system. Generally, if something is soft, comfortable and flexible, when you sit or lie on it, it flattens out. This will not work, because as soon as you lie on something and it flattens out or stops moving, your intrinsic and stabilizing muscles no longer need to work.

Also, if the material all flattens out evenly, then if a part of your spine is moving too much, it will just keep moving. If your spine is really stiff, it will just compress the material further. The device needs to be pressure sensitive. Then, if there is not much weight on a part of the device, it will stay soft (unstable or hyper-mobile), and the more weight on the device, the harder it gets.