

ESSAY: "WHEELCHAIR POSTURE AND THE JARIK CONTOURED FOAM CUSHION"

The purpose of this essay is to describe the common postural problems developed by wheelchair users and how the JARIK Contoured Foam Cushion helps prevent them.

The most common postural problem is a tendency for the hips to slide forward on the seat, creating a slouching posture. This, in turn, promotes a "C"- shaped curvature of the spine, known as kyphosis. There are a number of things we can do to help prevent this:

-First, we provide a contoured cushion surface, with a slight recess to the rear, designed to hold the hips to the back of the wheelchair.

-Second, we provide a textured pack cloth fabric that discourages the hips from sliding on the cushion surface.

-And third, we provide a non-skid bottom on the cushion that prevents cushion sliding while we sit or propel the wheelchair.

The second common posture problem is a tendency to slide off center on the sling seat of the wheelchair, causing one hip to sit lower than the other. We call this pelvic obliquity. Pelvic obliquity, in turn, often causes the upper body to compensate in the other direction, causing the spine to curve into an "S"- shape. This is called scoliosis. Again there are a number of simple things we can do to help prevent this:

-First, we can encourage use of the narrowest wheelchair that allows the user to pass his fingers but not his palms between his hips and the sides of the wheelchair. This will make wheeling the chair easier, as your arms are over the wheels. Narrower wheelchairs are also easier to get through tight doorways. And it will help prevent the off-center sitting and pelvic obliquities caused by wheelchairs that are too wide.

-Second, we can provide a solid seat on the wheelchair so that hips are aligned in the level position. Since solid seats add weight and interfere with the folding of the wheelchair, a simpler alternative is to provide a curve on the bottom of the cushion designed to fill in the curve of the sling or cloth seat. This will help neutralize the tendency of a sling seat to create unlevel hips if the person sits off center. We chose to make this curve subtle enough so that the cushion can still be used on a solid seat.

-And third, we make the cushion firm so that it compresses less under an obliquity. Soft cushions tend to accentuate an obliquity, as they compress more on the weight-bearing side.

The other common posture problem is improper leg positioning. Most often, we see legs uncomfortably close together – something that is directly caused by the sling

seat. We also might see them too far apart or windswept to one side. To prevent this:

- First, it is critical to drop the footrests so that the legs rest firmly on the front of the cushion. In most cases, this will, by itself, take care of the leg-positioning problem.
- Second, it helps to have a curved bottom or solid seat to neutralize the curve of the sling seat.
- Third, it helps to have a thicker front on the cushion to provide more leg support.
- Fourth, it is important that the cushion be as long as possible, to give the maximum leg support, without touching the back of the knee. This is why we make our cushions in a variety of lengths as well as widths, so that the cushion can be properly fit.
- And finally, a small, center abductor helps provide natural leg alignment.

To sum up the postural benefits of the JARIK Contoured Foam Cushion:

- It helps prevent common slouching or kyphotic postures.
- It helps level the hips, to help prevent pelvic obliquity and resultant scoliosis.
- And it helps position the legs properly.

Now, let's talk about comfort, which is a very important issue to people sitting up to 12 hours or more a day.

Besides bad posture, the biggest cause of discomfort is excessive pressure on the seat bones, where fatigue is most felt.

- To help ease this discomfort, the back of the cushion is shaped to the curve of the buttocks, so that pressure is more uniformly distributed across the entire seating area. However, this cushion is not for people at risk of pressure sore development. For that, try the JARIK Fluid Cushion.
- Another way to add comfort is to drop the footrests to put more pressure or support on the raised front portion of the cushion. More support on the legs means less pressure on the buttocks.

And finally, let's discuss cushion durability and cleaning.

- JARIK foams are stress tested to 500,000 compressions or 2 years' simulated use, with no noticeable deterioration. Depending on how they're cared for, they should last 5 years or more.
- In addition, the JARIK foam is twice protected from urine – First by a durable, urine-proof cover. And second, by a sealed inner pouch around the foam that protects against urine or contaminants seeping through the cover's seams.
- To clean, simply scrub with warm water and soap. Rinse with a wet cloth. And allow to dry.

To sum up, the JARIK Contoured Foam Cushion is designed for low cost, better posture, improved comfort, long durability and easy maintenance. But it is not for people at risk of pressure sore development.

For further information, I encourage you to access other documentation on our website:

-The first is an independent trial by 20 wheelchair users showing a strong and unanimous preference of the JARIK Contoured Foam Cushion over the conventional, flat foam cushion tested.

-The second is the foam stress testing conducted on the cushion proving no noticeable wear after 2 years' simulated use.

I hope this essay has helped you understand some of the posture and comfort issues related with wheelchair seating and I encourage you to email me at rickjay@jarikmedical.com with any questions or comments you might have.

Thanks.

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