

Mattress Back Support Research

BEST IN SUPPORT



BEST IN QUALITY



BEST IN SAFETY



BEST IN COMFORT



BEST IN DURABILITY

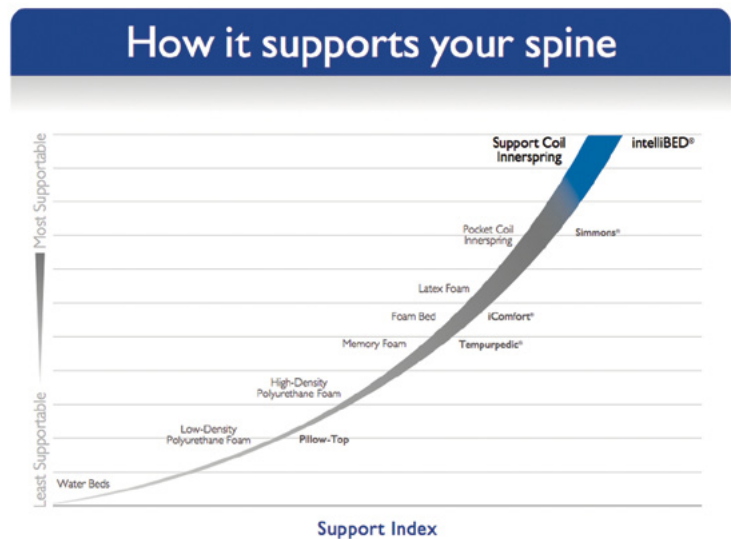


BEST IN VALUE



The first thing a wellness quality mattress should do is support your back. In the modern mattress there is a core system, or support layer, inside the mattress whose primary purpose is to support the back. If it allows the sleepers' hips to sink too deeply into the mattress it will throw off the alignment of the spine, causing back pain. 70 million people in the US report suffering from this type of sleep related pain. The Support Index measures the relative effectiveness of the different types of support systems commonly used in different types of mattresses to provide proper support.

Support Index



- The most important function of a mattress is back support
- The ideal mattress provides firm, horizontal support
- Keeping your hips & shoulders level prevents back pain
- Soft mattresses don't do this, IntelliBED does
- IntelliBED provides the highest level of support



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We've all been told about the importance of standing up straight, sitting straight, etc. When standing straight, the hips are centered directly below the shoulders. This places the least amount of stress and strain on the skeletal structure. It is essential that this same posture be maintained when sleeping. After all, each of us has probably felt the pain in our lower back in the morning after sleeping on a bed that is too soft or sags. But achieving proper support in a mattress is not as easy as it sounds.

The lower torso is the heaviest part of the body, so gravity pulls down harder on it. If the mattress, particularly the core allows the hips to sink too deeply into the mattress, a misalignment occurs. This manifests itself as lower back pain, and over time, almost everyone will develop a bad back from prolonged lack of support. In order to prevent this from happening the "ideal" mattress must be able to gently "push" the hips up into proper alignment with the rest of the body to eliminate any sag in the skeletal structure.

This chart compares commonly used core materials/ systems based on their ability to initially, and over time as they are used, provide a wellness quality of skeletal support. By far, the best system at keeping the skeletal system aligned is the support coil. Support coils are a layer of steel springs laced together so that they work in unison to prevent the hips from sinking too deeply into the mattress.

The current trend in the modern mattresses is to replace these steel innerspring cores with foam, air or water which is creating additional problems. These synthetic foam materials, soften and continually change with use. Every modern mattress from Sleep Number to TempurPedic to IComfort to all the pillow-top brands rely on foam to cushion the body, and herein lies the problem... none of these mattresses are capable of properly supporting the back after two to three years of use. Why? Because foam softens as you sleep on it.

In a sleep number bed, the air chamber is about five inches thick. If you buy a Sleep Number that is twelve inches thick, that means that there is seven inches of foam in your bed. Innersprings in a pillow-top mattress are six inches thick but most pillow-tops are between 10"-14" thick, meaning that you are sleeping on between 4 and 8 inches of foam, or more. TempurPedic mattresses are full foam mattresses, the bottom 2/3 or so of the mattress being regular polyurethane foam, and the top 1/3 or so being Tempur memory foam. Testing shows that even the highest quality premium foams lose 20-50% of their resiliency over the first couple years of use. This is why your two-three year old bed doesn't feel anything like it did when you first bought it. The support and comfort characteristics of the bed have changed for the worse.

But the real problem is that the foam in mattresses doesn't soften uniformly over the entire sleep surface of the mattress; it

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softens more in the center of the bed. The lower torso is the heaviest part of our body, so the mattress works harder, and thus softens more here. Also consider that if we follow the manufacturer's recommendations, we rotate our mattress from head to foot every six months. But our heavier lower torso is ALWAYS in the center of the bed, further causing the center of the bed to soften more. Over the years, we have dissected mattresses that we have hauled off to determine what caused the premature death of the mattress, and it is common to see the foam in the center of the bed 40% softer than the head/foot of the mattress. This non-uniform softening causes the lower torso to sag into a hammock shape, which leads to a de-stabilization of the lower-back and is the leading cause of back pain.

The only solution to this problem is to find a material that performs better than foam, and Intelli-Gel is that material. Testing shows Intelli-Gel only loses 4% of its resiliency over 20-years of use, and that makes IntelliBED better! IntelliBED with its unique combination of a top quality innerspring and advanced cushioning Intelli-gel (which also acts as a spring) provides the perfect combination of firm horizontal support (the kind that doctors recommend for a healthy spine) and pressure relief under the hip and shoulder area to cradle your body in the ideal sleep posture.

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