

Custom Therapeutic Seat Cushion

Researchers at the University of South Florida have invented a therapeutic seat cushion that could help alleviate pressure sores in sedentary users.

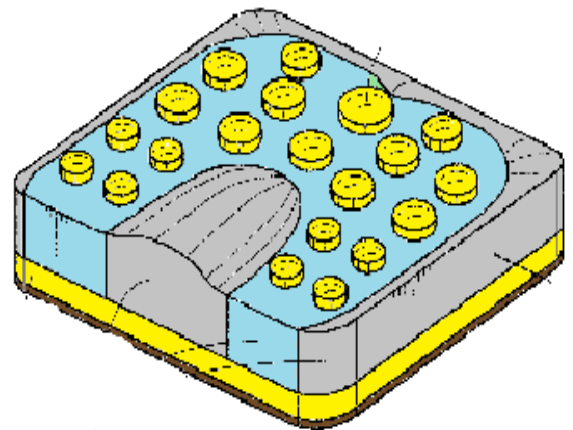
Pilots, truck drivers, receptionists, and others remain sedentary for prolonged periods of time. During prolonged sitting, blood flow can be restricted to areas where pressure is the greatest. This restricted blood flow results in tissue deterioration and can lead to further complications like pressure sores and infections. Although people living with paralysis are especially at risk, anyone who is bedridden, uses a wheelchair, sits for prolonged periods of time, or is unable to change positions without help can develop these problems. The current market for seat cushions offers a variety of options including foam, air cylinder, gel, and honeycombed. While these cushions provide many benefits, such as comfort, structure, and stability, none successfully address the problem of pressure sores which are caused by long periods of static pressure.

Inventors at USF have developed a cushion capable of using timed pressure relief that will help alleviate pressure sores. The design consists of a combination foam and air cylinder system that allows the user to alternate sitting on foam and air for predefined time intervals. In addition to its unique “timed pressure relief” system, this design incorporates the advantages of both the air and foam cushions. While the latter allows for stable support of the user, the air cylinder portion of the cushion allows for optimal pressure distribution to specially selected areas.

ADVANTAGES:

- Provides stable support for users
- Alleviates pressure sores when sitting for a long period
- Utilizes materials that easily conform to an individual user

Prevents Pressure Sores



Upper Perspective of Foam Cushion

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