

perforations, punches or slits will allow for the transfer of sweat from the skin beneath the wound closure device. Certain smaller gauge perforations, produced for example using a pin die as discussed above, may allow for vapor transfer but not sweat transfer. It is a matter of routine experimentation to determine discontinuity parameters that will allow for sweat transfer. Optimal discontinuity design for one specific polymer sheet backed with one specific adhesive, may not work well using a different polymer sheet and/or different adhesive. A particularly soft or gummy adhesive, for example, may function in a self-healing role by flowing in to fill perforations when such perforations are introduced with a particularly small diameter piercing element.

It will also be recognized by one of skill in the art that punch-type discontinuities will tend to remove skin contact surface area (and adhesive) from an adhesive-backed anchoring member. For this reason, larger punch-type discontinuities (e.g., paper punch size discontinuities, or larger) are not favored, at least for applications requiring high adhesion characteristics.

For a variety of reasons, slits or slices introduced into the adhesive-backed anchoring members are preferred. For one, like perforations, slits or slices do not remove material from the adhesive-backed anchoring members and, therefore, the adhesive-backed anchoring members retain their full surface area and adhesive content following the introduction of the slits or slices. Slits or slices can be straight or curvilinear and the slits or slices can be relatively long (e.g. running the length or width of an adhesive-backed anchoring member) or generally short in length. Furthermore, under flexion, a slit or slice will tend to open up. This tendency serves at least two purposes that represent advantages in the context of a two-component wound closure device. First, the "opening up" of a slit or slice under flexion enables relative unimpeded transfer of sweat from the surface of the skin beneath the adhesive-backed anchoring member to the external environment. Second, the "opening up" of the slit or slice tends to allow the adhesive-backed surfaces adjacent to the slit or slice to remain in good adherence with the skin. The present of the slit or slice tends to reduce peel or shear forces that tend to result in poor adherence characteristics. When introduced, in embodiments of slices are relatively long the effect can be the creation of a plurality of adhering subdomains in the adhesive-backed anchoring member.

In preferred instances, slits are introduced into each adhesive-backed anchoring members in a direction generally perpendicular to the wound edge of the adhesive-backed anchoring member. The slits are positioned so that they will fall between elongated connectors in an applied device. Slits oriented in this way tend to allow a particular adhesive-backed anchoring