

**HEALTH LINK****● Glass Scalpels**

Would you want your surgeon to use a scalpel that was thousands of years old? Probably not, unless it was a razor-sharp knife blade made of obsidian, a natural volcanic glass. Such blades and arrowheads were used for nearly 18,000 years by our ancestors. Recently, physicians have found a new use for these Stone Age tools. Obsidian blades, once used to hunt woolly mammoths, are now being used as scalpels in the operating room!

**Obsidian or Stainless Steel?**

Traditionally, physicians have used inexpensive stainless-steel scalpel blades for surgical procedures. Steel scalpels cost about \$2 each, and surgeons use them just once and throw them away. Obsidian scalpels are more expensive—about \$20 each—but they can be used many times before they lose their keen edge. And obsidian scalpel blades can be 100 times sharper than traditional scalpel blades!

During surgery, steel scalpels actually tear the skin apart. Obsidian scalpels divide the skin and cause much less damage. Some plastic surgeons use obsidian blades to make extremely fine incisions that leave almost no scarring. An obsidian-scalpel incision heals more quickly because the blade causes less damage to the skin and other tissues.

Many patients have allergic reactions to mineral components in steel blades. These patients often do not have an allergic reaction when obsidian scalpels are used. Given all of these advantages, it is not surprising that some physicians have made the change to obsidian scalpels.

**A Long Tradition**

Early Native Americans were among the first people to recognize that chipped obsidian has extremely sharp edges. Native Americans made obsidian arrowheads and knife blades by flaking away chips of rock by hand. Today obsidian scalpels are fashioned in much the same way by a *knapper*, a person who makes stone tools by hand. Knappers use the same basic technique that people have used for thousands of years to make obsidian blades and other stone tools.

**Find Out for Yourself!**

Making obsidian blades and other stone tools requires a great deal of skill. Find out about the steps a knapper follows to create a stone tool. Find a piece of rock, and see if you can follow the steps to create a stone tool of your own. Be careful not to hit your fingers, and wear safety goggles.