Skewered Balloons!

In fourth grade, young chemists study the makeup of different kinds of matter. Here's a scientific experiment that demonstrates the structural principles of polymer strands, which stretch the boundary of our definitions of liquid and solid.

That's the technical explanation, of course. If you do this experiment at home, be prepared for an even more immediate pleasure: roars of laughter and gasps of delight.

What You Need:

- Several thin bamboo barbecue skewers
- Small dish of vegetable oil
- Large latex balloon

What You Do:

1. Blow up your latex balloon to a point just short of being full--so that it's still a little squishy—and so there is a dark area at each end. Knot it off.
2. Now take a bamboo barbecue skewer and dip the sharp point into the vegetable oil so that the top 1" or so is well soaked.
3. Using a twisting motion as you go, poke the sharp into the dark , thicker latex near where you tied the balloon off. Drive the skewer all the way through to the dark latex on the far side. Still twisting, push the skewer through the far side of the balloon.
4. Expect a pop? Anyone who is watching will! But the balloon will hold its air, because the polymers in the latex haven't been stretched to their fullest point. They can still stretch and surround the barbecue skewer. In fact, you can keep going. See how many skewers you can drive through the balloon. As long as you leave them inside, the balloon will hold most of its air. After a while, of course, air will leak out. But not before you've done some very fun "science magic!"

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