# Coin goes through rubber

- or so it seems!

(Scotland, UK)

### **Background**

This magic trick is a real crowd pleaser! Everyone who sees it can't believe their eyes! How could a coin disappear through an elastic sheet and leave no hole?

#### You will need...

- ✓ Cup or jam jar
- ✓ elastic band
- ✓ a coin
- ✓ a sheet of latex rubber dental dam (source from your local dentist or HenrySchein.ie)

## Follow these steps:

- A thin rubber sheet, with a coin on top, is placed so as to cover the opening of an empty cup.
- 2. The edges of the sheet are held against the sides of the cup either by the magician, or a rubber band.
- A member of the audience is then invited to push down on the coin with his/ her finger.

# So what happened?

As the audience member pushes down on the coin, the rubber stretches a little, and then, suddenly, the coin appears to go through the rubber, and falls to the bottom of the cup.

(top pictures)



The elastic deformation is what underlies the trick where a coin, apparently on top of a rubber sheet covering a cup, appears to go through the rubber and fall into the cup.

The coin, is in fact always under the rubber sheet and is held in an invagination which is stabilized by elasticity and by friction.

The dental dam is made rubber latex, which consist of long polymers. When you stretch these materials, the polymers straighten out and slide alongside and over one another. When you let go, small forces between the polymers pull them back together, like a contracting spring.

Because of this these materials are called "elastic," which means they spontaneously return to their normal shape after they are stretched or compressed. However the key to this trick is that when you stretch the dental dam enough it becomes transparent. Placing the coin underneath the stretched dental



dam makes it appear to the audience as if it is on top of the dental dam.

Pushing down sufficiently hard on the coin (or equivalently, applying sufficient tension at the edges of the rubber) causes the invagination to become unstable, the coin is released and falls to the bottom of the cup. Magic!!

#### What next?

Dazzle your audience with how many kebab skewers you can push through a balloon as shown below.



(Vaseline on the skewers makes the trick easier to do!) This is great for open nights in school