

Fat-binding products

Background

In our research, we have tested the real effects of some fat binding products usually sold at chemists. The experiment originated in Spain by Sagrario García-Zafra.

You will need...

- ✓ Pestle and mortar
- ✓ 3 graduated cylinders
- ✓ 3 pieces of filter paper (preferably thin)
- ✓ 3 funnels
- ✓ 3 beakers
- ✓ Magnetic stirrer
- ✓ Vegetable oil – 25 cm³ × 3
- ✓ 2 different products of fat binding tablets labelled A & B.
- ✓ A natural fat binding product (e.g. sea shells)
- ✓ Electric hand blender
- ✓ Gloves and safety goggles

Follow these steps

1. Grind up 4 tablets of each fat binding product separately, add to separate beakers.
2. Grind up the natural fat binding product (sea shells), use the blender and take precaution (goggles), add to another beaker.
3. Add 25 cm³ to each of the three beakers.

4. Place each beaker on the magnetic stirrer for equal times and at equal speed to ensure it is well mixed.
5. Place a piece of filter paper in each of the three funnels. Put each funnel over a graduated cylinder and add the mixtures.

So what happened?

After leaving the graduated cylinders overnight, our findings were that the fat binding tablets of A (XLS – Medical) left a lot of residue in the filter paper but very little oil, just under 2mls, nothing compared to how much oil we started with, 25mls. The fat binding tablets of B (Xipisan) left nearly no residue in the filter paper but just over 2 cm³ of oil, still a very low amount. Unfortunately, we didn't prove our sea shells to be a natural fat binding product, as all of the oil overflowed into the cylinder and we were left with a lot of residue on our filter paper. These results show us that the best fat binding product is XLS-Medical with its small amount of left over



oil. In relation to the body, it would be very little fat from that remainder oil to be absorbed into the bloodstream.

What next?

To continue this experiment, we would be very interested in finding a natural fat binding product and would like to try crab shells. The natural fat binder versus the pharmaceutical product would be very interesting to look in to. We would also be interested in changing the oil type to test the effectiveness of fat binders on oils that may have more or less fat.