

# Ginger and vinegar as pesticide

[Science](#), [Biology](#)



DNA Extraction from Cheek Cells Materials: Water, Clear Dish Soap, Table Salt, Spoilsport Alcohol (70%) or Ethanol, FoodColoring 1 . To 200 ml drinking water add two teaspoons of salt 2. Gargle the salt water for 1 minute. 3. Spit the gargled water into a beaker (or new cup). Now your cheek cells are suspended in the salt water. 4. Gently stir the salt water with one drop of soap (try to avoid air bubbles) 5. In a separate beaker (or cup), mix 20 ml spoilsport alcohol and 1-3 drops of food coloring 6.

Optional: You may want to transfer the gargled salt water/soap solution to a test tube to make it easier to see the DNA. 7. Gently pour the colored alcohol over the top of the gargled water so that it forms a layer on top. 8. Wait about 2. 5 minutes until you see white clumps and strings forming - THIS IS DNA! 9. Use a stirring rod or straw to spool the clumps of DNA out of the solution. Instructions from Nova Video Since DNA is the blueprint for life, everything living contains DNA. DNA isolation is one of the most basic and essential techniques in the study of DNA.

The extraction of DNA from cells and its purification are of primary importance to the field of biotechnology and forensics. Extraction and purification of DNA are the first steps in the analysis and manipulation of DNA that allow scientists to detect genetic disorders, produce DNA fingerprints of individuals, and even create genetically engineered organisms that can produce beneficial products such as insulin, antibiotics, and hormones. DNA can be extracted from many types of cells. The first step is to lyse or break open the cell. This can be done by grinding a piece of tissue in blender.

After the cells have broken open, a salt solution such as NaCl and a detergent solution containing the compound SDS (dodecyl sulfate) is added. These solutions break down and emulsify the fat & proteins that make up a cell membrane. Finally, ethanol is added because DNA is soluble in water. The alcohol causes DNA to precipitate, or settle out of the solution, leaving behind all the cellular components that aren't soluble in alcohol. The DNA can be spooled (wound) on a stirring rod and pulled from the solution at this point. Ginger and vinegar as pesticide By monolingual