

# Nanotechnology in Health Science and Imaging

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## INTRODUCTION

Nanotechnology is the study and application of extremely small things and can be used in fields such as chemistry, biology, physics, materials science, and engineering.

First began in 1981, when the development of the scanning tunneling microscope was able to view individual atoms.

It is very hard to visualize - size of particle is one billionth of a meter.

There are 25,400,000 nanometers in an inch, and one sheet of a newspaper is 100,000 nanometers thick.

Something we are going to focus on in nanotechnology is the way holograms are

## BACKGROUND

A hologram is a three-dimensional image that is displayed by light beams and nanoparticles.

Between 10 and 100 times smaller than just one pixel.

The nanotechnology field is also involved in holographic sensors, and optical imaging, which is used in the medical field when dealing with certain procedures such as surgical removal of tumors.

## RESEARCH

### Holographic Sensors

The portable holographic sensors can change color when they detect disease, such as, thrombosis, etc. in your blood, tears, saliva, and breath.

It is possible to design a holographic biosensor from hydrogel, a material similar to contact lenses, infused with silver nanoparticles that form laser pulse 3D holographic technology.

## CONCLUSION

Nanoparticles are small particles that have a

## REFERENCES