HEALTHY TIPS

Smart Teen Invents Color-Changing Sutures to Easily Detect Infection

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The genius invention of Dasia Taylor, a teenager, has the potential to save people's lives.

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This bright and charismatic 17-year-old teen who resides in Iowa, USA has invented a revolutionary suture that changes color if the wound becomes infected.

This is a feature she hopes will alert the doctors to avert fatal infections.

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She was inspired because she wanted to help to the women in the developing nations who're negatively affected by surgical site infections, particularly from C-sections.

High School Senior Invents a Life-Saving Suture

The high school student explains that the 'secret ingredient' of her invention is the humble beet. She has read about 'smart sutures' that use tech to detect infections and can be synced to phones.

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However, she was searching a more natural substance to be an alternative to expensive tech, one which could flag infections from changes in the ph.

She used juices from around three dozen beets to dye the suture materials. She discovered that a polyester and cotton thread provided the optimal blend of thickness, color darkening, and absorbency.

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The change of color happens when they're exposed to solutions with higher ph, which is a sign of infection. Taylor, a standout science student, replicated her results with the optimal thread in the form of sutures which she stitched on an artificial skin pad and exposed it to several ph solutions.

She explained that when she was given the chance to do research, she couldn't help but look at it through equity lens.

Moreover, she said that when doing such important research, one has to think about the lives they're going to influence and ensure the people will be able to access it.

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Her invention won her the place at the Iowa State science fair for a finalist in the National Regeneron Science Talent Search competition organized by the Society for Science.

What Are Miss Taylor's Plans for the Future?

She wants to patent the sutures and to eventually be used regularly in health care worldwide.

Currently, she's working on maintaining sterile practice techniques with the guidance of microbiologist from the Iowa University, as beets are reported to have antibacterial characteristics.

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Sources:

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