NTU Scientists Use 3kg of Durian Husks to Make 1,600 Antibacterial Plasters; May Be Even Better Than Regular Bandages

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Would you use an antibacterial bandage that's made from a… *durian husk?*

To worshippers of the spiky-shelled fruit, it's surely a no-brainer. After all, they appreciate just about everything that's durian-related: the spikes, the taste and the *stench.* They'd probably love to slap more durian into their system.

But to individuals on the other end of the spectrum, the notion could be nothing short of mortifying.

And the 'worst' part? After years of fleeing the grasp of the fruit, durian-haters must now contend with the idea of wearing one on their skin.

Like literally.

NTU Scientists Use 3kg of Durian Husks to Make 1,600 Plasters

According to *TODAYonline*, scientists from Nanyang Technological University (NTU) have uncovered a way to convert durian husks into antibacterial gel bandages.

Yes, the ones that are commonly used to cover surgical wounds to decrease excessive scar tissue.
So usually, such bandages would be made out of synthetic materials such as polymers. At the same time, they may possess metallic compounds like silver or copper.

But it appears that scientists have somehow dismissed the need for such conventions with their latest discovery.

Why complicate the process when you can just use a discarded durian husk?

According to the news report, the team of four scientists has created the ultimate combination: cellulose from durian husks, Glycerol—produced as a waste byproduct during biodiesel manufacturing, and organic molecules from baker's yeast. And the end result?

A bacteria-killing bandage.

“By using waste products that are currently discarded in large quantities — durian husks and glycerol — we could turn waste into a valuable biomedical resource that can enhance the speedy recovery of wounds and reduce chances of infections,” said Professor William Chen, the team’s leader and director of NTU’s food science and technology programme.

And It May Even Be Better Than The Real Thing

The gel bandage is said to be organic, non-toxic and biodegradable, thus making it more environmental-friendly than the usual bandages.

The bandage is likely to be inexpensive too, owing to its relatively cheap manufacturing process.

Apparently, a 3kg durian can churn out around 40g of cellulose: an amount sufficient to manufacture about 1,600 plasters measuring 1cm by 2cm.

Add in other extraction-related procedures and it will still cost *a lot* less than the conventional enzyme-extraction process.

And for those mortified by any prospective “durian scent”, you can actually rest assured because the gel does not keep the fruit’s trademark odour (or fragrance, depending on how much you love durian).

Apparently, the strong smell routinely stems from the durian’s flesh, and not the husk.

Also, the extraction process serves to eliminate any residual smell, so no worries there.

Commercialisation

Thus far, the product has not been made available for commercial purchase.

However, the NTU team has expressed hopes to do so in a year or two.

According to *TODAYonline,* the general plan is to "make the bandages available over-the-counter at pharmacies, so that consumers have more options."

And for the record, their motivation may stem from a different cause than the one you're thinking.

"The motivation here is not to sell our antibacterial bandage, but to prove that sidestream food waste can be upcycled."

Well, they've certainly achieved the latter, and they can now set out to kill both birds with one stone.

Durians

These spiky-shelled fruits may not be commonly associated with the health industry due to their overly pungent smell, but they are said to actually be pretty efficient in the nutrition sector.

Apart from a respectable amount of fibre per cup, durian also contributes substantially to your daily Vitamin C, thiamin and manganese intake.

It's also supposedly rich in healthy plant compounds, with the likes of anthocyanins, carotenoids, polyphenols, and flavonoids. Apparently, several of these compounds operate as antioxidants.

Talk about not judging a book by its cover, or a durian by its husk.