

Popular Mechanics

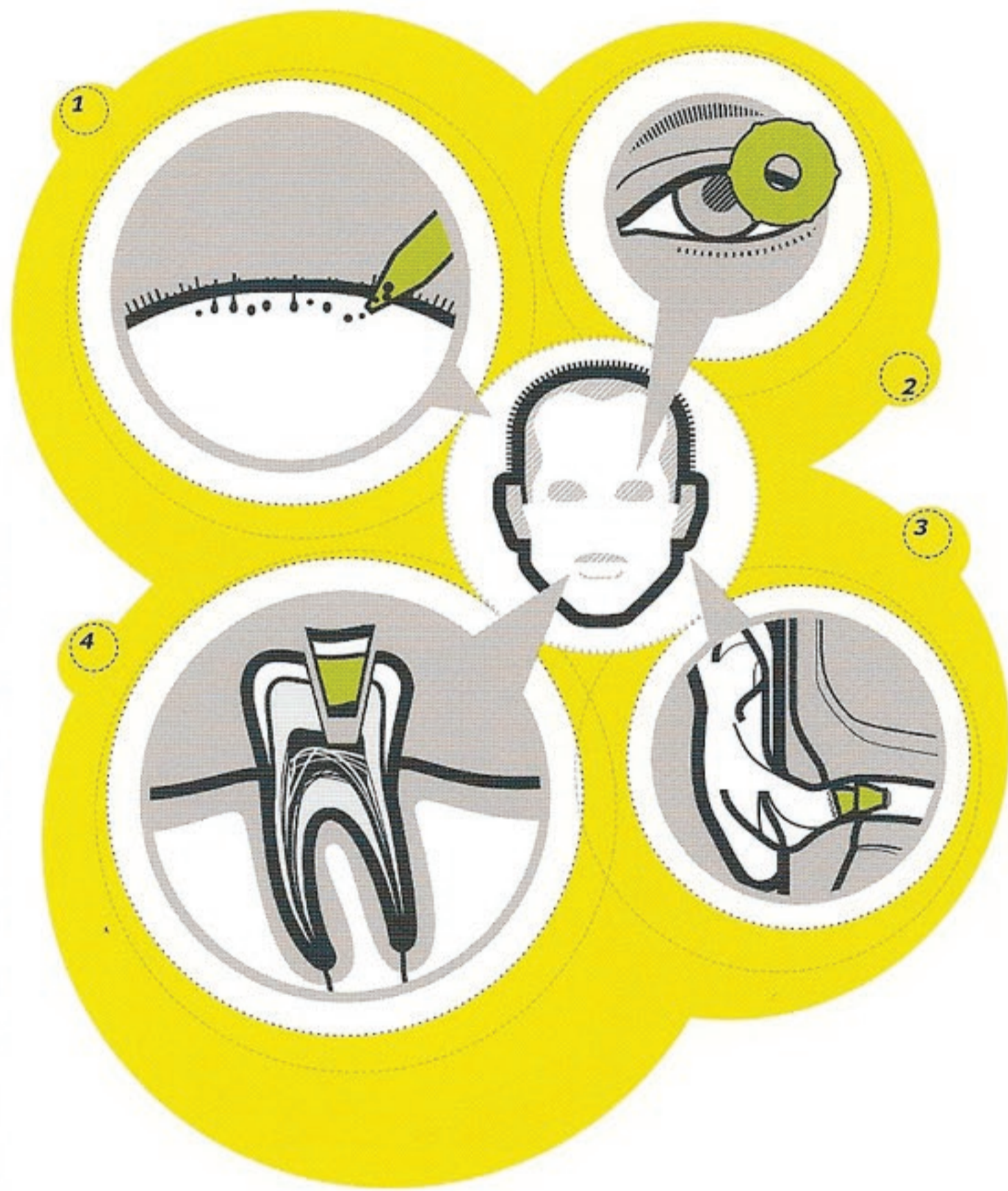
Science Automotive Technology Home Outdoors

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This Is Your Head on Science

FROM EYE IMPLANTS TO STEM-CELL DENTAL WORK, SCIENCE IS PAVING THE WAY FOR NEXT-GEN MEDICAL PROCEDURES.
BY AMBER ANGELLE

→ **Whether the goal** is sharper hearing or sharper looks, researchers continue their efforts to improve the features nature gave us. These head-centered therapies employ everything from stem cells to tiny electronics in their pursuit of aesthetic advantage. They could lead to wide-ranging medical advances—or just more lucre for cosmetic surgeons.



1 Next-Gen Hair Transplant

+ Scientists at Atlanta-based Aderans Research Institute are researching a way to create a nearly inexhaustible supply of hair plugs. Instead of merely transplanting hair cells from a patient's tissue, researchers extract the cells and grow them in a lab, multiplying them about a hundredfold before injecting them into the scalp.

Availability:
Projected within five years.

2 Color-Changing Eye Implant

+ Color-changing contacts have been around for years, but they are easy to spot. NewColorIris lenses, developed by Panama-based KMD, are surgically implanted on the iris (the procedure takes 15 minutes), with a donutlike hole for the pupil to peep through. The result: a permanent, more natural-looking pair of baby blues.

Availability:
In Panama and Switzerland now. FDA trials will begin soon.

3 Invisible Hearing Aid

+ Most hearing aids are bulky and unsightly. California-based InSound Medical has created perhaps the most discreet hearing aid yet. The Lyric rests deep in the ear canal, out of sight, and out of the way of wind. A wireless keychain remote controls volume, and the device can be left in the ear for up to four months at a time.

Availability:
Available since January 2009.

4 Natural Tooth Filling

+ Researchers at Tufts University are working on a way to use stem cells to repair tooth decay. How it works: Tooth-growing cells are seeded into polymer scaffolds. The scaffolds are then implanted into the jaw, where they regenerate tooth enamel, dentin and pulp. The operation has been successfully tested in pigs and rats.

Availability:
Could be available for humans within seven years.