



WHERE DOES THE TOOTH FAIRY TAKE MY TEETH?

A Look at the Tooth-Bank Trend

During your pregnancy, you were probably inundated with brochures about banking umbilical-cord blood. The idea: This stem cell-rich blood could one day be used to cure your child of a serious disease. Now, companies store stem cells from children's baby teeth—for a hefty fee. Is it worth it?

HOW IT WORKS

→ Sign up online with a service like Tooth Bank (toothbank.com), Store-a-Tooth (store-a-tooth.com), or National Dental Pulp Laboratory (ndpl.net). The company will mail you a collection kit containing a vial of stabilizing solution and cold packs to keep a tooth chilled. Tell your kid's dentist that you plan to store baby teeth for dental stem cells. He will determine when the time is right to numb the area, pull the baby tooth, pop it into the vial, and mail the kit to the company's storage facility. Depending on which package you choose (prices range from \$475 to \$1,800, with additional annual storage fees of about \$150), the whole

tissue can be frozen or scientists may culture cells before freezing them to create more cells, says Peter Verlander, Ph.D., chief scientific officer of Store-a-Tooth. "A tooth is so valuable because its pulp (the center filled with nerves and blood vessels) contains stem cells, which scientists can use to create healthy cells to help heal damaged tissue."

WHO MAY BENEFIT

→ It's still a big question mark. Some studies suggest that "mesenchymal stem cells" (which include stem cells from dental tissue, bone, cartilage, fat, and muscle) can generate new nerve tissue, says Jade Miller, D.D.S., president of the American

Academy of Pediatric Dentistry (AAPD). That's why scientists study them for their potential to treat conditions as varied as heart disease, Alzheimer's disease, spinal-cord injuries, and type 1 diabetes (in addition to tooth regeneration). But as of now, the FDA has no approved uses for these cells.

Many experts remain unconvinced that dental stem cells will ever be useful for anything besides tooth regeneration. "The data showing that you can take dental stem cells and make them work like muscle or nerve cells is very slim," says Pamela G. Robey, Ph.D., chief of the craniofacial and skeletal diseases branch at the National Institute of Dental and Craniofacial Research at the National Institutes of Health.

THE BOTTOM LINE

→ Time will tell whether tooth banking is a valuable investment or a waste of money. Since there are still many unknowns about the process, the American Academy of Pediatrics (AAP) has yet to release a statement for or against it, and the AAPD's official stance on tooth banking is vague.

The AAP does support free public cord-blood banking and cautions against paying to privately store cord blood as an "insurance policy." Cord blood is already collected to treat blood disorders, but it's not always possible to treat a person with his own cord blood, since the cells may have the same genetic defect that caused the disease.

Although there's no public donation option for teeth yet, we're all for keeping the Tooth Fairy in business.

—Barbara Brody



Turf That Could Be Toxic

Shin guards and cleats? Check and check. Orange slices for a halftime refuel? Check. Ensuring that the field your kid plays on is safe? Ch... not so fast! If your child plays on artificial turf made from recycled rubber tires (a cheap and weather-resistant material used in most outdoor sports fields built after 1990), you might be surprised to learn that it contains known cancer-causing chemicals as well as ones that are toxic to the nervous and reproductive systems, say doctors at the Children's Environmental Health Center at the Icahn School of Medicine at Mount Sinai, in New York City. While this material has the potential to be harmful, experts don't yet know for sure whether the toxins are getting into kids' bodies. (Last year, the federal government announced an extensive and ongoing investigation.)

In the meantime, advocate for the use of natural grass over synthetic material in new fields, and when your child does play on turf, follow these simple safety tips:

1. Clean any cuts that happen on a turf field immediately.
2. Make sure she removes her shoes before coming inside the house, shakes her uniform out over a garbage can, and showers right away.
3. Avoid turf fields on sunny days when the temperature is 80°F or higher. Their surface can climb up to 200°F and cause burns.



FROM TOP: JENNIFER BOGLE/OFFSET; LANE CARY/GETTY.