

## New Implant Improves Artificial Eyes

By Deborah Simpkins  
The University News Service  
Until recently, when people lost an eye they received a plastic eye with an artificial eye-shell. They were often not happy with the result caused by a lack of movement. After three years of research, two ophthalmologists found that a "coral" implant is effective in creating normal movements for an artificial eye less likely to be rejected by the

Federal Food and Drug Administration recently approved a coral-like implant, known as hydroxyapatite, for general use. Studies performed at Duke University Eye Center by Jonathan Dutton, M.D., Ph.D., an ophthalmologist, and at several other centers. The research was conducted in cooperation with his colleague Arthur Perry, M.D., in San Diego.

The beauty of this implant is it mimics part of the normal tissue, so it doesn't get infected and it becomes incorporated into the surrounding tissue," said Dutton, who has used the implant on approximately 45 patients. So far only about 200 patients in the country have received the implant because many ophthalmologists have not yet learned the special techniques needed for the procedure.

When an eye must be removed because of disease (such as end-stage glaucoma), cancer or eye trauma, the loss of volume causes the eyelids to sink in and the orbit slowly shrinks, reducing the patient's ability to wear an artificial eye. An implant is necessary to replace that lost volume.

Traditionally, a plastic and occasionally a glass or a hollow metal ball have been used, but they can erode tissue, displace to one side, or come out even to the point of pushing the artificial eye out.

The biggest complaint from patients is that they have problems with the movement of the artificial eye," Dutton said, adding that previous attempts to correct all the problems associated with these type of implants have proved ineffective.

Corals, however, is not prone to these problems. "Hydroxyapatite is made of calcium carbonate, which is the inorganic chemical framework of bone," he said. Therefore, it is not treated like a foreign substance by the body. Because it has pores, blood vessels and tissue are able to grow into it, and we are able to connect the muscles to it."

Dutton uses donor sclera, the white tissue found on the outside of an eye ball, to cover the hydroxyapatite — much like one wraps a baseball with leather. He then creates "windows," or holes, to allow blood vessels access to the coral's pores. The hydroxyapatite is implanted into the orbit, and the muscles are sewn directly onto the sclera covering.

The patient wears an artificial eye while the conjunctiva, the membrane that covers sclera, heals and blood vessels grow into the implant. After six months the body, through its blood vessels and tissue, has accepted the implant as its own. (A bone scan confirms that the implant has a complete and functioning blood supply.)

Although the implant is effectively in place at this point, Dutton takes the reconstruction one step further. He drills a small hole in the front center of the implant and places a peg there. Then an ocularist (one who makes artificial eyes) makes a matching depression to fit the peg. He incorporates that depression in a custom-built artificial eye that, when inserted, will move as the implant moves and because the implant was successfully attached to the muscles, the artificial eye's movement will be coordinated with the movement of the natural eye.

The ocularist takes great care in his handiwork. He hand paints each artificial eye and uses red silk threads to simulate blood vessels in the sclera.

"When the procedure is finished, the patient will have an artificial eye that looks and moves almost exactly like the natural eye," Dutton said.

Before the FDA approved hydroxyapatite for use in the eye, it had been approved only for use in jaw reconstruction.

### THE HOME GAME BY VIRGINIA TRUAX

**ONE LAST FLING** — On your last cookout of the season, why not grill an extra steak to be frozen and reheated later in the microwave. For one frozen steak, reheat five minutes at 30 percent power (or defrost on some models), then 50 percent (medium) for five more minutes.

**OUT OF GAS** — Make your home-baked beans less gassy by adding two tablespoons of baking soda to the presoak water.



OGDEN, ARK. — Floodwaters from the Red River poured through and over levees forcing the evacuation of residents in

Southwest Arkansas. Millions of dollars in damage have been reported. (UPI Photo)

## Rural Obstetrical Care Incentive Program Funding Urged By Family Physicians

The North Carolina Academy of Family Physicians held its 42nd Annual Scientific Assembly in Greensboro April 25-29, and legislative issues were given high priority.

The major legislative objective of the Academy during 1989 was the continued funding of the Rural Obstetrical Care Incentive Program (ROCI), which would provide state monies to assist in payment of malpractice liability premiums for doctors providing obstetrical care in obstetrically underserved areas in North Carolina.

In 1989, 51 physicians and 28 counties benefited from state ROCI allocations. That allocation was responsible for stalemating the exodus of doctors practicing obstetrics in several counties.

During 1989 and 1990, two hundred forty thousand dollars

have been appropriated annually for the Rural Obstetrical Incentive Program. Fifty-six physicians and 25 counties are targeted for

assistance in providing obstetrical services in underserved areas of our state. The Academy has, since 1988, sought ROCI funds for 1.5

million dollars annually to supplement liability insurance premiums for doctors serving in eligible and obstetrically deficit counties.

The North Carolina Academy of Family Physicians has repeatedly proclaimed strong support for the ROCI Program as the best means to provide more perinatal care to expectant mothers and, in turn, retard the severe infant mortality rate in North Carolina which is 12.7 deaths per 100 live births and represents the highest rate in the United States.

The Rural Obstetrical Care Incentive Program is a start in the right direction to increase perinatal care and decrease fetal mortality, and the North Carolina Academy of Family Physicians expresses continued strong support for ROCI funding.



### Ask Dr. Epstein "All About Adolescents"

**Dear Dr. Epstein:** I am a mother of three young children, and my oldest daughter is in the fourth grade.

Her elementary school has a police officer come out periodically to talk to the children about substance abuse and crime. Because of these visits she has decided to lead a drug free life. She has written a short poem I would like to share with your readers. **Mrs. S.**

#### Drugs Are Not For Me

I want to think smart, feel smart, healthy and free and that's why drugs are not for me.

I want to play safe, stay safe, naturally and that's why drugs are not for me.

When I say no to drugs, I'm saying yes to me, and that's the only thing I can do, you see.

My heart is sure and my mind agrees and that's why drugs are not for me.

Say no to drugs!! Sebrina, Age 9

**Dear Mrs. S.:** Thank you for sharing your daughter's special poem. It is truly heartwarming to see such a positive response to the drug problem from such a young child. Also, it is encouraging to know that children as young as your daughter are giving thought to the dangers of substance abuse.

As your daughter pointed out in her poem, by saying no to drugs, children are saying yes to themselves.

**Dear Dr. Epstein:** I am 16 years old and I have a problem with my boyfriend who is 17.

I am not ashamed to admit that I am not sexually active, however, my boyfriend has been putting pressure on me.

I like him alot, but I am not ready to make that kind of commitment. I also don't want to lose him because he is so special to me. You see we have been dating for eight months now.

How can I let him know how much I care for him without doing something so drastic? **Confused**

**Dear Confused:** The problem you write about occurs frequently with teenagers.

At this point, you should place your trust in the relationship. Go to your boyfriend and tell him that you need to talk. Explain to him in a friendly, but direct, manner that you care about him, but also that you care about the future of your relationship. In addition, tell him that you are certain that he cares deeply for you and that you know he would never do anything to deliberately hurt you. Explain that you are feeling pressured to become involved sexually. Tell him that you feel the two of you need to slow down and let the relationship develop more fully before you make a commitment.

You will know when you are ready to become sexually involved because it will seem natural and comfortable. If you were to give in to your boyfriend's pressure, you would begin to resent him and feel angry. Resentment and anger will not lead to a relationship with a positive future.

**Bruce A. Epstein**  
Dr. Epstein has practiced pediatric medicine in St. Petersburg, Florida, since 1972. Dr. Epstein serves on the Board of Directors of STRAIGHT, Inc., a national adolescent drug treatment program with National Corporate offices in St. Petersburg, Florida. STRAIGHT maintains the nationwide 24-hour hotline, 1-800-9-FRIEND. You can write Dr. Epstein at 3001 Gandy Boulevard, St. Petersburg, FL 33702. ©1989.



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### Head Lice: Prevention and Treatment

Head lice are tiny parasites — about the size of small ants. Lice have claws on each leg that allows them to cling to the skin and suck small amounts of blood from humans. Infestations of head lice are common among elementary-age school children. Head lice bites often produce redness, itching, and scratching for up to 24 hours after bites occur. Severe bites may result in crusting and oozing from the scalp and along the hair line.

Prescription and nonprescription medicines are available to help get rid of head lice. Prescription medicines include shampoos and cream rinses that are applied to the scalp for a few minutes and then rinsed away. Nonprescription shampoos should be applied a second time, 7 to 10 days after the first application. Some of the shampoo products come with a hair comb for removing lice eggs (nits) that may remain after shampooing.

Prevent head lice infestations by washing infected family member's clothes in hot water and drying clothes in a hot dryer for at least 20 minutes. Vacuum areas such as the backs of chairs and head rests that may come in contact with infected persons. Disinfect combs and hair brushes and periodically check children's hair for lice or eggs.