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Fighting theft

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In the majority of cases, donated bodies are an invaluable tool for training medical students who perform dissections on the embalmed corpses. They might also be used for medical research and to aid surgeons in fine-tuning new techniques or emerging technologies.

Thousands are donated to medical schools each year, and these bodies are largely treated with respect and carefully tracked to ensure remains are used properly. (No one knows how many bodies are donated because there is no central regulatory organization; estimates top 10,000 to 12,000 a year given to medical schools.) But no federal agency or organization oversees or coordinates the acquisition or use of human bodies for medical education and research. The abuses have led to a call for more regulation and efforts by university administrators to adopt first-of-a-kind programs to try to prevent future thefts.

"What we really need is a national uniform law, a minimal standard," says Ronn Wade, director of the Maryland State Anatomy Board, which maintains custody of unclaimed bodies and administers a statewide body-donor program. "The profit incentive is what's driving the train down the track. (The donation of bodies) has become very entrepreneurial, and it takes away from the dignity and humanity of these gifts." Multiple allegations of bodies swiped from medical schools have surfaced. At the University of Texas Medical Branch at Galveston, employee Allen Tyler supervised anatomical services, overseeing bodies that were donated to the school. He worked in the morgue.

But in 2002, he was fired after a university audit led to suspicions that he'd provided body parts - including more than 200 fingernails to a pharmaceutical company - for illegal profit. The FBI closed the investigation after Tyler died of cancer in 2002.

FBI special agent Jim Walsh in Houston says Tyler stole bodies donated to the university. Tyler would then cut them up and send parts to hotels, Walsh says. During medical seminars held in hotel conference centers and ballrooms, doctors would practice surgical procedures on the severed parts. Tyler would often ship the body parts, then travel to the hotels, picking up the arms or shoulders at the front desk, Walsh says. He would then prepare them for the doctors and clean up after the cutting was done. Tyler was never charged with a crime.

"He was stealing from the university. He was telling the university he'd received a body that was unusable, diseased or in an accident, but then he'd put it on ice and sell it," Walsh says. The FBI agent says hundreds of bodies were sold off in parts on which Tyler made about $200,000. He was paid by vendors and other companies that provide body parts, and he changed invoices so payments went to his home.

After donated bodies are used for science, the remains might in some cases be cremated and returned to family members. But the FBI says Tyler commingled ashes of the bodies he'd cut apart in a 55-gallon drum. When family members requested the remains, Tyler would dip an urn into the drum and send them commingled remains of other donors, Walsh says.

Demand for body parts

When her husband Rola died in 2001 at 85 of heart failure and diabetes, Annabelle Whiting of New Braunfels, Texas, followed his wishes and donated his body to the University of Texas Medical Branch at Galveston. Later, she says, she got a call from the university telling her his ashes would not be returned. She says she learned that his body was one of those cut up by Tyler and sent to surgical seminars. Whiting says she doesn't know where the parts of his body wound up; the family has filed a lawsuit.

"I believe when he died, he went to the arms of God," says Annabelle, 77. "But you think about it. They used severed heads at those seminars for sinus surgery. I don't know where his head went. It's macabre. It's not real. It's ghoulish."

She is upset that the ashes were mixed together and couldn't be returned, and also that his body appears to have been used for profit. The family's lawsuit seeks in part to hold the university accountable.

Human remains have become increasingly valuable as medical research expands. Body parts are in demand by companies that want to teach surgeons to use their products, and they're also used at medical seminars where doctors can practice techniques and earn continuing education credits.

It is illegal to buy and sell body parts. But it is legal to provide reasonable fees for such work as procuring, processing and handling bodies - fees that can reach into the thousands of dollars, providing incentive for illicit sales. Almost all parts from bodies donated to science are valuable, from torsos and skin to leg bones and fingernails.

Universities typically share any surplus cadavers with other medical schools. They might also provide body parts, for a processing fee, to private research firms. This kind of farming out of donated body parts is legal. But sometimes, family members are upset to learn how donated bodies were used.

For a number of years, Tulane University's medical school received more cadaver donations than it could use, so excess cadavers were provided to others in the medical and allied sciences for use in education and research. Tulane officials say that was done to meet the needs of the community and follow donor wishes.

Some bodies went to a company that oversaw the lending of cadavers to other institutions. After use, the cadavers were to be cremated and returned to Tulane.

In 2002, five of Tulane's cadavers were transferred to the Uniformed Services University of the Health Sciences, which trains medical officers for the military. The cadavers were dressed in protective footwear, then subjected to landmine blasts done in Texas to test the footwear's effectiveness, according to Tulane officials. When information about this research became public, some family members of Tulane donors were upset. Tulane says it stopped using the company that provided the bodies for the military testing in 2004.

To try to prevent theft, some medical schools are taking aggressive approaches.
At the five medical schools in the University of California system - which includes the University of California, Los Angeles (UCLA), and the University of California, Irvine (UCI) - plans are in the works to install radio-transmitter devices in donor bodies and body parts to aid in tracking.

Other stepped-up security measures include a systemwide coordinator, electronic locks on facilities and security cameras in areas where cadavers are prepared.

"We feel good about this," says UCI Chancellor Michael Drake, an architect of the systemwide policies and oversight in place for the willed-body programs. "We would certainly encourage others to adopt similar protocols, and we'd be happy to participate in a larger effort to set standards."

One concern is that people might shy away from donating their bodies to science - a critical gift for saving lives and training the medical community - because of body-part theft and lost cadavers.

Says Holly Frost, director of the anatomy lab and assistant dean of emergency medical services technology at Northern Virginia Community College's medical education campus in Springfield, about donated bodies: "I take great care of them. This will improve medical care."

Crucial for research

To many, such gifts are invaluable. But the thefts have caused some medical experts to call for new safeguards.

"I do believe we have severe problems ... and we are sailing in increasingly dangerous waters," says Todd Olson, a professor at the Albert Einstein College of Medicine in New York.

At the University of California, Irvine, Christopher Brown, director of the medical school's willed-body program, was fired after university officials said in a 1999 written release that they believed he'd provided spines from donated bodies to a private research firm.

They said Brown directed that the money go to an organization not affiliated with the school, a violation of policy. They also said donor cremains might not have been properly returned to families. UCI has since instituted reforms to its willed-body program.

Brown, who was never charged with any crime, denied the allegations through his lawyer.

But the lawsuits from family members linger. When Ray Yuenger's mother Anneliese died at 82 after suffering from Alzheimer's, her final wish was to have her body donated to science and any remains cremated and scattered at sea.

The family donated her body to UCI on the assurance that the school would use it for medical research, cremate the remains, and arrange to have them scattered at sea. The family received ashes back about one month after her death.

But Yuenger, 53, says the ashes they'd scattered couldn't have been their mother's. An identification tag found in the ashes showed that the remains were actually cremated two months before she died, Ray says.

The Yuenger family sued UCI and received a $500,000 settlement from the school in 2005.

"I don't know that we'll ever know what happened to her," says Yuenger, a lawyer in San Jose. "My mom had been suffering from Alzheimer's, and she just deteriorated. I felt like its a shame I lost my mom, and I couldn't do anything for her. Now, I feel like I lost her again."

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