UCLA launches first face transplantation program in western U.S.

New program seeks transplant candidates for five-year clinical trial

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The UCLA Health System has launched the UCLA Face Transplantation Program, the first surgical program of its kind in the western United States and one of only a handful in the nation.

"Facial transplantation offers the potential to restore humanity to persons who have suffered the devastating loss of their face," said Dr. Kodi Azari, chief of reconstructive transplantation and associate professor of surgery at the David Geffen School of Medicine at UCLA. "People with massive facial injuries often have trouble breathing, speaking and eating, as well as depression and social isolation. Early surgeries have demonstrated very promising results in improving both appearance and function."

The UCLA face transplantation team recognizes the sensitivity required when it comes to working with patients who have experienced a severe facial disfigurement. Understanding that a person's identity and sense of self are closely tied to their facial appearance, the team will also support the patient's emotional adjustment to their new face after the surgery.

"Our goal in creating this program is to return a sense of normalcy to our patients' lives," said Dr. Reza Jarrahy, surgical co-director of the new program and assistant professor of plastic and reconstructive surgery at the Geffen School of Medicine. "We hope that restoring facial form and function will provide the opportunity for patients to lead productive lives that are not defined or hampered by facial appearance."

UCLA is currently seeking patients willing to participate in a face-transplant clinical trial and to be followed for five years after their surgery.

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Candidates for the clinical trial will undergo a thorough evaluation to determine whether they meet the criteria for participation. The evaluation includes a comprehensive medical history, a physical examination, lab tests, X-rays and a psychological exam. Approved participants will be placed on a waiting list until the center identifies a suitable match from a donor. Recipients must match the donor's blood type, gender, ethnicity, skin tone, hair pattern and other criteria.

Additional eligibility criteria for the clinical trial include:

- The patient's facial disfigurement cannot be repaired by conventional surgery.
- The disfigurement is not due to a birth defect.
- The patient's age is between 18 and 60 years.
- The patient has no serious infections, including HIV or hepatitis B or C.
- The patient is in otherwise good general health.
- The patient must commit to extensive rehabilitation after surgery, including soft-tissue massage and speech, swallowing and facial-motion therapies.
- The patient must agree to follow a drug schedule to prevent transplant rejection and attend all appointments at the transplant center.

Dr. Gerald Lipshutz, medical director of the new face transplantation program and associate professor of surgery and medicine at the Geffen School of Medicine, noted that face transplantation is still considered experimental and is not without risk.

"Each patient will need to take drugs the rest of their life to suppress their immune system and prevent rejection of their new face," Lipshutz said. "One of our study's purposes is to look at the effectiveness and safety of the anti-rejection drugs that will be used."

To date, 19 patients worldwide have received partial or complete facial transplants; five of these surgeries have been performed in the United States.

The surgery takes from eight to 20 hours to complete. Surgeons first remove the damaged portions of the patient's face and then attach the donated face to the patient's supporting structures. This includes joining soft tissue like skin, fat, muscles, tendons and ligaments and securing the bones with screws and other hardware. The surgery's most delicate facet involves painstakingly stitching the patient's nerves and blood vessels — too small to be seen by the naked eye — to those in the new face.

While solid-organ transplants are common at UCLA and other major medical centers, reconstructive transplantation — a complex surgery involving a variety of tissues (including bones, tendons, arteries and nerves) — marks a new direction for the field. Unlike organ transplants, which are performed to save lives, reconstructive transplants aim to dramatically improve them.
"Microvascular transfer of tissues to reconstruct the face is not new. It is very similar to reconstructive surgery after traumatic injury," said Dr. Ronald W. Busuttil, distinguished professor and executive chairman of surgery at the Geffen School of Medicine, who established the UCLA Liver Transplant Program in 1984, the first on the West Coast. "What makes this study experimental is that we are uniting the fields of microvascular reconstructive surgery and transplantation medicine to transplant the face."

The demand for face transplantation procedures is expected to increase due to long-term U.S. military action overseas. Experts estimate that some 200 veterans have lost all or part of their face. In the civilian sector, nearly 1,000 trauma and burn patients suffer extensive facial injuries that drastically affect their lives.

The UCLA Face Transplantation Program plans to partner with UCLA's highly successful Operation Mend, which offers facial and hand reconstructive surgery to the nation's wounded soldiers.

The program will integrate specialists from throughout the UCLA Health System, including the areas of head and neck surgery, plastic and reconstructive surgery, oral surgery, psychiatry, pathology, anesthesia, internal medicine, radiology, neurology, ethics, and rehabilitation services.

In addition to principal investigator Azari and co-investigators Jarrahy, Lipshutz and Busuttil, co-investigators include Dr. Keith Blackwell, professor of head and neck surgery; Dr. Vishad Nabili, assistant professor of head and neck surgery; and Dr. James Bradley, professor of plastic surgery, all of the David Geffen School of Medicine at UCLA.

For more information on the study, or to learn more about face transplantation at UCLA, please visit www.facetransplant.ucla.edu or call 310-794-2558.

The UCLA Health System, which comprises the UCLA Hospital System and the UCLA Medical Group and its affiliates, has provided the best in health care and the most advanced treatment options to the people of Los Angeles and the world for more than half a century. UCLA's preeminence in health care — a strength that comes from the union of research, teaching and excellence in patient care — continues to be recognized nationally, internationally and in numerous forums. The clinical programs of Ronald Reagan UCLA Medical Center, UCLA Medical Center–Santa Monica, the Resnick Neuropsychiatric Hospital at UCLA, and Mattel Children's Hospital UCLA have produced a system of hospital care that is unparalleled in California. Ronald Reagan UCLA Medical Center is consistently ranked one of the top five hospitals in the nation and the best in the western United States by U.S. News & World Report, and the UCLA Medical Group has been ranked among the best in Southern California for four successive years by the Integrated Healthcare Association. UCLA physicians and hospitals will continue to be world leaders in the full range of care, from maintaining the health of families to the diagnosis and treatment of complex illnesses.