SPRING FASHION SPECIAL: Soft Looks in the California Style

Los Angeles Times Magazine

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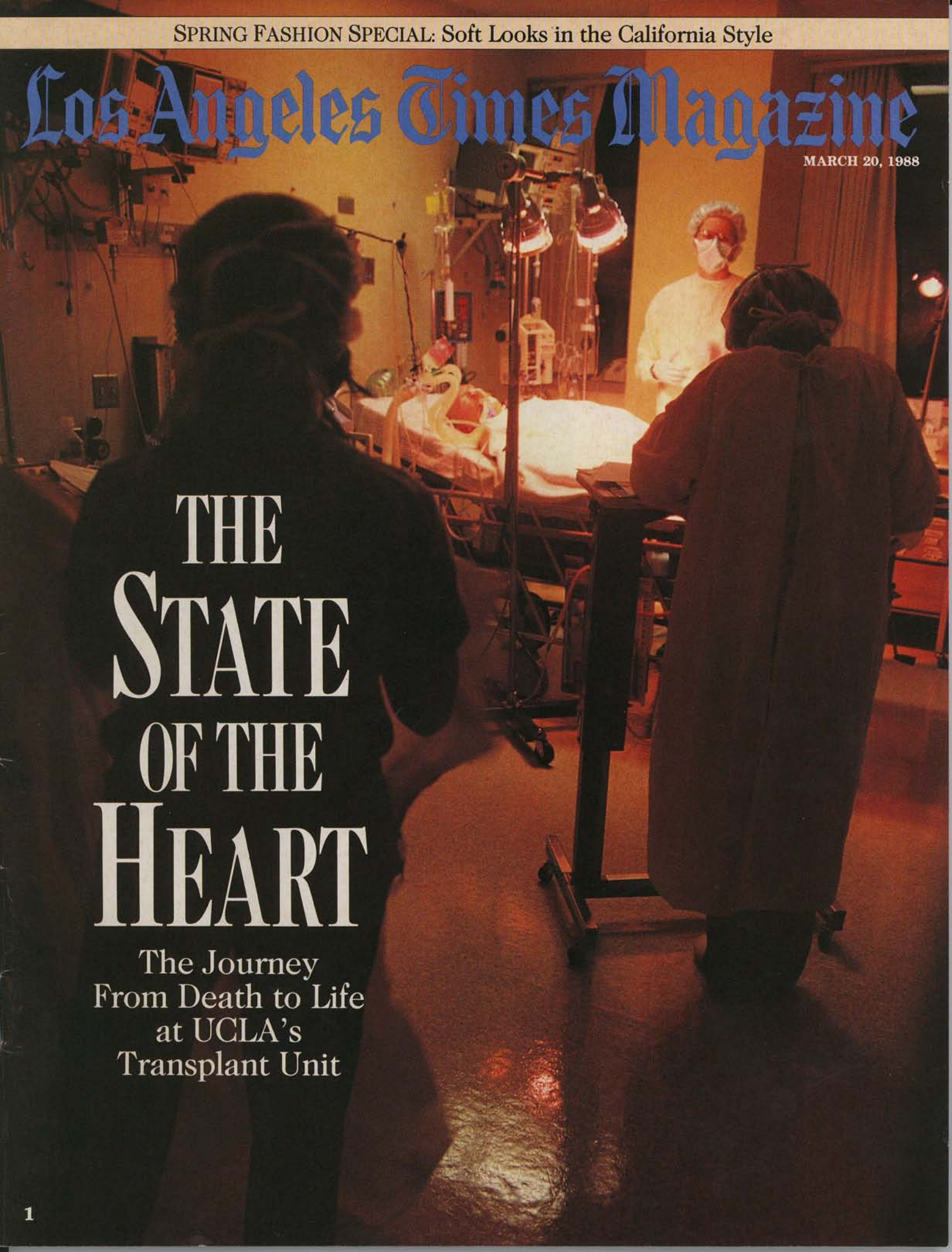


THE STATE OF THE HEART

The Journey From Death to Life at UCLA's Transplant Unit

Los Angeles Times Magazine

THE STATE OF THE HEART

One Man's Journey From Death to Life

IT WAS ONLY 50 YEARS AGO THAT A SURGEON first entered the human body to repair a damaged heart. Since then, medicine has made remarkable progress against the No. 1 killer in America. Although deaths from heart disease have fallen in recent years because of changes in life style, in 1985 the number of those deaths was still more than double those from cancer. That year, 991,332 Americans died of heart disease.

One of the most dramatic developments in the fight against the disease has been the heart transplant. If all other treatments fail, a new heart is the only way to prolong life for a victim of "end stage" heart disease—a person with six months or less to live. Since 1967, when Dr. Christiaan Barnard performed the first human heart transplant, 6,403 hearts have been replaced worldwide. Of those, 3,952 patients are still alive. The first transplant recipient lived 18 days. Now, on the average, 81.6% of the recipients are alive after the first year; 78.7% survive after five years.

In January of this year, two decades after the first heart transplant, a 39-year-old San Diego janitor lay in Kaiser Foundation Hospital in Los Angeles waiting for a new heart. Without it, Larry Minniear could expect to die within six months. Today he can look forward to a full life. This is the diary of Minniear's experience in the heart transplant unit of UCLA Medical Center.

BY NANCY SPILLER

WAITING WITH A SICK HEART

Kaiser Foundation Hospital
Los Angeles
Tuesday, Jan. 12, 1988

HIS PINK FACE breaking into a bright-eyed grin, Larry Minniear looks far too healthy to be topping UCLA Medical Center's list of heart transplant candidates. There are no outward signs that without a replacement for his failing organ, Minniear hasn't much more than a few months to live. The only clue that he could drop dead any moment would come from the green, glowing line of light on the electrocardiogram to which he's wired. A graceful, waltzing swoop of a beat is the norm, but it can change suddenly to a maddening zigzag stitch, his heart having short-circuited. Its rate would double instantly, like a car with a faulty gas pedal and no brakes.

The rapid heartbeat prevents blood from pumping properly throughout his system, causing a dangerous drop in blood pressure and fainting or cardiac arrest. His doctors call these ventricular tachycardias; Minniear calls

Behind the scar, Larry Minniear's new heart: "Compared to the other one, it just pounds."

Brian Smale / Onyx

The Surgeon

DR. HILLEL LAKS' day usually begins at 6:30 a.m. and doesn't end until 9 p.m. or even midnight. Five days a week, UCLA Medical Center's 45-year-old director of cardiothoracic surgery tends a full schedule of bypass and pediatric cardiac operations. And as chief heart transplant surgeon, the nights and weekends he would otherwise spend with his wife and three children are frequently taken with calls to do emergency transplants.

UCLA Medical Center's Dr. Hillel Laks: "A life of great highs and great lows."

"I've seen him work 72 hours through," says Dr. Lynne Warner Stevenson, medical director of UCLA's heart transplant program. "Most people consider him superhuman in terms of his skills and his dedication to his patients."

Laks, a native of South Africa, was finishing his medical internship in Johannesburg when Dr. Christiaan Barnard performed the first heart transplant, in Cape Town. Laks was attracted not only to the "technical challenge" of heart surgery but also to "a field where the effect of helping people is more dramatically seen."

Laks left South Africa for the best cardiac surgery training then available, at Harvard and Boston's Children's Hospital. He later gained a reputation as one of the nation's leading children's heart surgeons and was director of pediatric cardiac surgery at Yale when UCLA recruited him in 1982. UCLA wanted a director who would expand its number of heart surgeries from 250 annually to 800. Laks saw a need for a transplant program in Southern California and proposed that the university start one.

The medical center's first transplant was also Laks'. "The donor was not very good," he acknowledges. That same day, when a second heart miraculously became available, "we had to do a second transplant." That operation was a success, but the patient succumbed to an infection within a few months.

"It was a hard, difficult start," Laks says. But it didn't hinder the growth of the program or its establishment of an above-average success rate. Dr. Raymond Schultze, director of UCLA Medical Center, notes that Laks' reputation as a surgeon "made getting referrals to the program much easier than if he'd been an unknown." In 1985, Dr. Davis Drinkwater was hired to share a caseload that increases annually. In 1988, they expect to perform more than 40 transplants.

Laks doesn't see a time soon when artificial hearts will replace the need for transplants. The human heart is "an incredible pump," he says. "In terms of having no external power source, not forming clots within it, efficiency and wide range of function, it's far superior to anything that has been thought of for an artificial heart."

Nor would Laks want to replace the thousands of hours he has spent in its repair. "There's nothing quite as satisfying as helping somebody and nothing quite as devastating as not being able to," he says. "It makes for a life of great highs and great lows." —*N.S.*

them "v-tachs," and they've already killed him once. It was on a Saturday, a year ago in October, and he had just finished bowling three games with his son in their regular weekend league. He stood up to talk to someone and, without even a twinge of pain as warning, dropped dead on the spot.

"The paramedics lost me three times," Minniear says with weary disbelief. Now, one pacemaker, one stroke and countless v-tachs later, he waits for a donor organ to lift the noose from his neck.

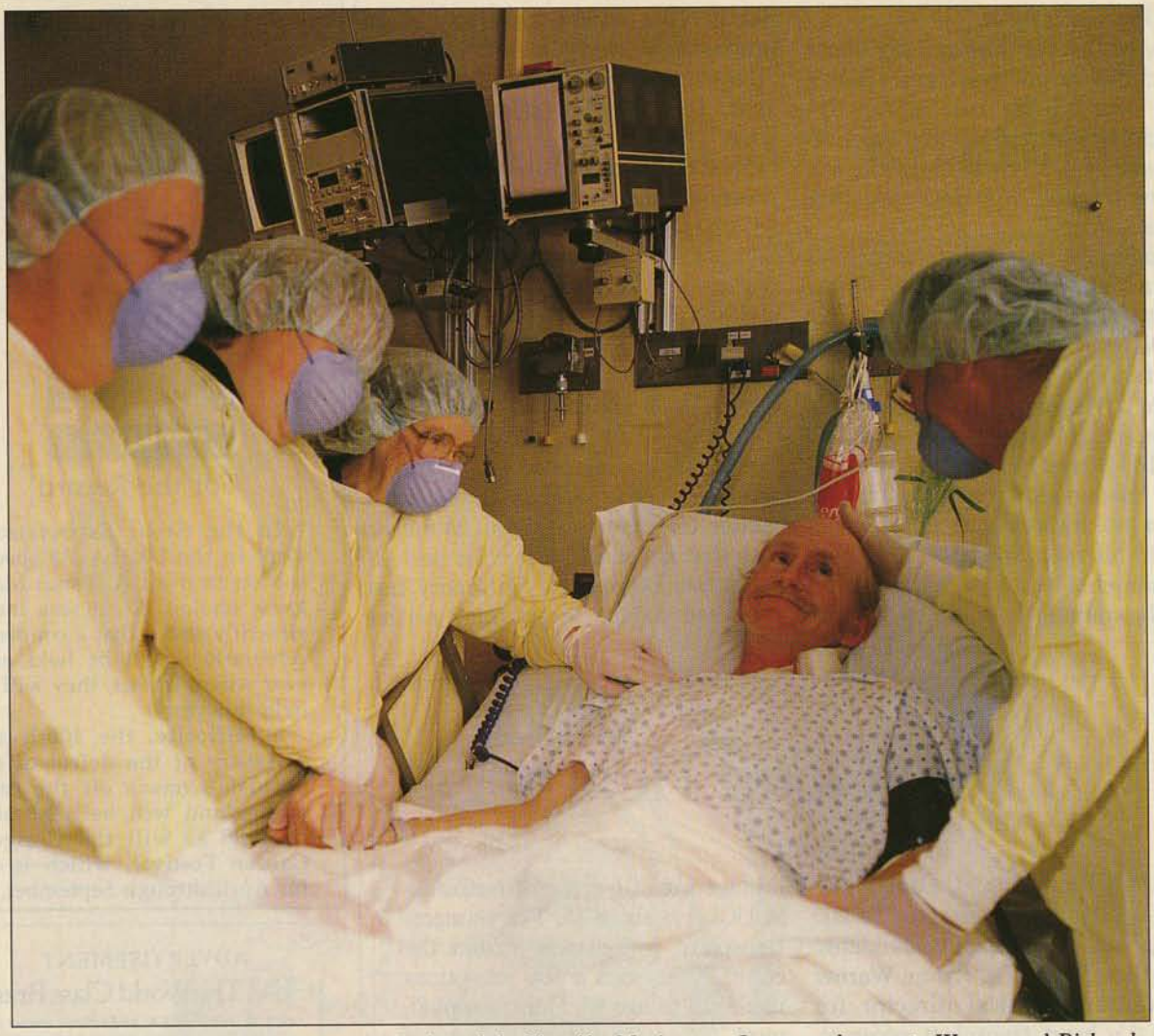
He's been hospitalized since Christmas Day, when he went into v-tach while climbing his apartment stairs. He and his wife of 16 years, Marie, and 13-year-old son, Jason, had just come back from dinner with his parents. After a brief stay in San Diego's Kaiser Foundation Hospital, the decision was made to transfer him to Los Angeles for transplant consideration. For the past year, Kaiser has contracted with UCLA to do its heart transplants in Southern California, processing patients through its Sunset Boulevard facility. Minniear's cardiologist in Los Angeles, Amar Kapoor, referred his case to UCLA, and six days ago Minniear was told that his name had been put on the list of nine transplant candidates. His relative youth, otherwise generally good health, positive attitude and supportive family had all worked in favor of his acceptance. And, because he was considered to be in the greatest danger of sudden death, he was placed at the top of the list.

With acceptance has come hope for a new life, and he talks of the future like a giddy kid. He'll go back to work, maybe two jobs, like he used to do, and then retire to Arizona. Most anything will be possible except, he says laughing, "I'm not going to be one of those heart transplant patients who jogs six miles a day."

A successful transplant could lift many of the restrictions Minniear has lived with since the age of 10, when it was discovered that his heart had been damaged by an earlier bout of rheumatic fever. The petal-shape tissues of his aortic valve, which prevent blood from flowing back into the heart, were left scarred from the illness and leaking. Larry was ordered to keep a lid on his natural high energy. No P.E. clas-

Nancy Spiller is a Los Angeles writer.

Photographed by Rosemary Kaul



Minniear two days after surgery with, from left, his wife, Marie; son, Jason, and parents Wayva and Richard.

Minniear wanted to keep the mechanical valve from his old heart to have it made into a paperweight.

ses, no typical boyhood adventures. Caving in against doctor's orders, Richard Minniear did let his oldest son have a paper route. Richard, now 66 and retired from pest-control work, recalls watching Larry carouse one day as a teen-ager. "I told him, 'Larry, you be careful. Remember what the doctors said.' He stopped dead in his tracks, turned to me and said, 'Dad, I don't care if I die today. I'm going to have fun.'"

By the age of 28, Minniear's aortic valve was shot. When he lay down at night, it was difficult to breathe. Fluid filled his lungs, and his heart was literally choking in blood. Doctors replaced the valve with a plastic one in an operation they considered a 50/50 risk.

"It gave me 12 good years," Minniear says now. It also gave him a strong faith in medicine. He doesn't want to know about his grim need for a transplant or about his chances of surviving. "The less I know about things like that, the better," he says. "I don't want to worry about it. I just hope I can get another 12 years."

The mechanical valve did its job but couldn't repair the damage already done to Minniear's heart. His left ventricle was swollen and weak. Unable to pump at full strength, his heart began to stretch until, in 1986, he suffered the major v-tach with cardiac arrest. Regular v-tachs followed. When these couldn't be controlled by drugs, a pacemaker was tried. That didn't help, and a transplant was proposed.

Minniear wasn't thrilled by the idea. "As far as I was concerned, it wasn't a great thing to go through. They hadn't been doing them that long. But I was having v-tachs all the time, and I said,

'God, I'm ready for it.'"

Now he talks enthusiastically about the fact that no one gets a heart from a donor over 35. He tells of the 51-year-old Kaiser patient who received the heart of a 19-year-old. "He was jumping for joy," Minniear says. "He was doing great."

Minniear is better equipped than most to keep his worries at bay. He's a graduate of the clownology program at San Diego State University and used to perform at children's parties with his son. Whether it's his training or his nature, Minniear remains chipper. He's always ready to face his problems with a laugh, kidding with the endless stream of doctors and nurses who come to his room for tests. But there are moments when he's cried and when he couldn't help thinking about death. "I wouldn't have any more problems to worry about," he says. "But my wife would have all the problems. I don't know how she would cope."

Health aside, Minniear's most pressing concerns are financial. The $85,000 to $150,000 cost of the operation is fully covered by Kaiser; not so the support of his family. He's been unable to work since November, and they've gone from his $1,600-a-month salary to $125 a week from state disability. They applied for welfare but were refused because, Minniear says, "we make too much money." His wife has taken her first job, as a part-time janitor for minimum wage. Minniear says that his employer for the past 10 years, San Diego State University, has promised to try to get him partial

A Few Good Hearts

UCLA MEDICAL Center annually evaluates 150 to 200 heart transplant candidates. "Of those," says Dr. Lynne Warner Stevenson, medical director for UCLA's heart transplant program, "only about 40 actually get a new heart." Some are turned away because they have more than six months to live and therefore aren't considered "end stage" heart patients, or because they're too ill (other organs are failing as well).

Potential heart transplant patients' cases are referred to the program by their cardiologists. The cases are then reviewed by cardiologists at UCLA and presented to a committee that meets once a week. In considering each one, Dr. Hillel Laks and Dr. Davis Drinkwater, the two transplant surgeons, are joined by six cardiologists, two psychiatrists, two transplant coordinators, pulmonary and renal specialists, a social worker and an infectious disease consultant.

The most common causes for need are heart failure brought on by coronary artery disease and cardiomyopathy, a disorder usually caused by viral damage to the heart. The average age of transplant recipients at UCLA is about 45. The youngest transplant patient was 7, and the cutoff is 60, with a few exceptions made up to age 65. Once accepted, most patients are put on beepers and sent home to wait for the call that a donor heart is available.

UCLA's transplant program claims a success rate of 85% to 90% survival the first year and 75% after three years. Still, Stevenson says, the severe shortage of donors is what keeps this "most dramatic of solutions" from being available to all. (The International Society for Heart Transplantation says 14,000 to 20,000 Americans suffer annually with end stage heart disease that would benefit from a transplant, but that just 1,000 to 1,200 donor hearts are available each year.)

At UCLA, medical therapy receives as much emphasis as surgery. With individualized treatment, "about one-fourth of the patients we see for full transplant evaluations are put back on track," Stevenson says. "They feel so good, they say never mind to a transplant. They're able to live their daily lives without any limitations." —*N.S.*

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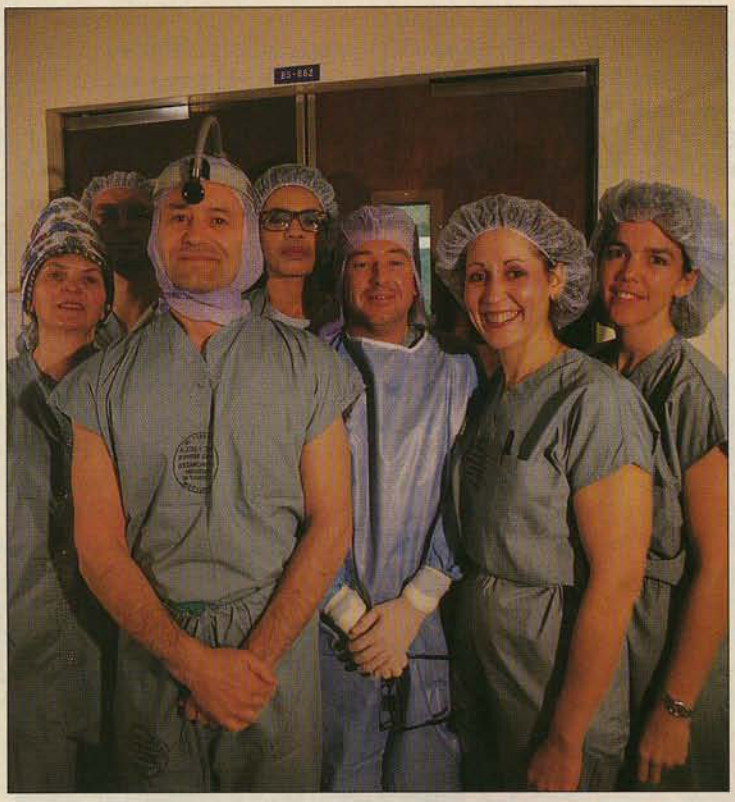
For the Record

In the Great Expectations story in the UK/LA '88 special section in the L.A. Times Magazine on Jan. 17, it was inadvertently stated that a couple of celebrations will be held next year when, in fact, they will be held this year.

Specifically, the 400th anniversary of the defeat of the Spanish Armada off the coast of England will be celebrated in 1988 as will the Glasgow Garden Festival, which is set for April through September.



Dr. Hillel Laks, front left, with members of his surgical team.

The surgical team is under pressure to get the new heart circulating in four hours or less.

retirement benefits until he returns to work, possibly six months after the operation.

Saturday, Jan. 16

THE MINNIEAR FAMILY drives up for their weekly visit. Jason brings the bowling trophy he won last Sunday, and Marie has packed homemade burritos for Minniear's lunch. His father, Richard, and mother, Wayva, 63, suffering herself from serious stomach and liver disorders, have come as well. The family is close-knit. Minniear's parents and his brother, Randy, 31, live but a few blocks from his apartment in the Normal Heights section of San Diego. Two sisters also live in the region. The family members pull extra chairs into Minniear's room, where they watch TV and fill him in on all the news from home. Marie sits on the edge of her husband's bed, gently rubbing his arm, saying little, until it is time to go.

The sky has turned to a billowing canopy of steel-gray. The storm that local weathermen have been predicting for the weekend appears imminent. With it could well come a new heart.

"January picks up for us historically," UCLA heart transplant coordinator Jackie Wilmarth explains. "Because of the rainy season we get a lot of motorcycle- or automobile-accident victims with severe head trauma." A wet winter and spring will keep the transplant team busy, while the rest of the year, save for a suicide victim or two during the holidays, is "unpredictable."

Because most victims' families seem to need the daytime to decide to donate organs and because operating rooms are most easily had at night, Wilmarth warns Minniear that the call for his heart will probably come between 9 p.m. and 3 a.m.

Still, every time the phone rings at the nurse's station outside his door, "I think it's for me," Minniear says.

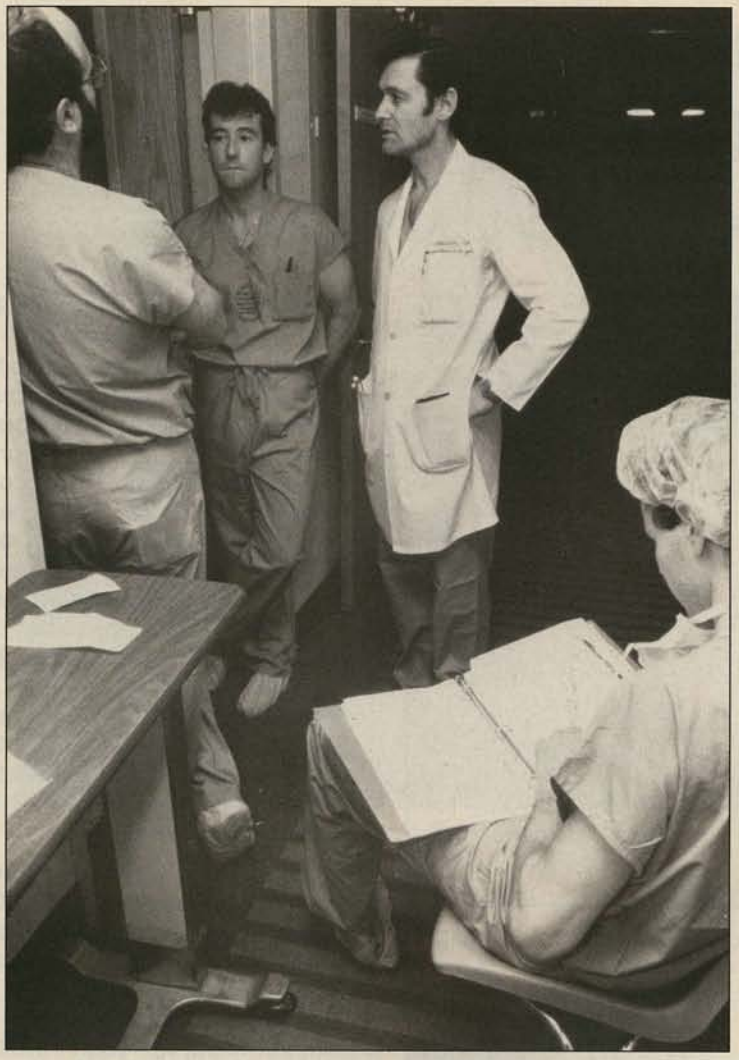
THE WAITING ENDS— 'THEY GOT ONE'

Sunday, Jan. 17

PROVING THE EXCEPTION to the rule, Minniear gets his call just a few minutes after 3 p.m. "They got one!" he tells his wife in a phone call to San Diego. He's unable to hold back the tears. An orderly will soon be in to shave his body for surgery and an ambulance will be arriving to take him to UCLA. He's on his way.

The drama leading to his call began Friday night and without benefit of foul weather. A 21-year-old man crashed his motorcycle in southern Los Angeles County and was declared brain-dead Sunday morning. When the family agreed to donate his heart, liver and kidneys, the hospital he had been taken to contacted the Regional Organ Placement Agency. Its computer listed UCLA as the closest hospital with the sickest patients, both for the heart and the liver. Wilmarth got the call offering the heart about noon, at which point began one of the most crucial phases of the process: matching donor to recipient. Wilmarth found that the blood types matched and that the donor and Minniear were within a 20% range of height and weight. It looked as if one of two cardiac surgery rooms could be opened and available by evening. The day before, UCLA wouldn't have been able to accept an organ because both cardiac operating rooms were taken with emergencies. Wilmarth contacted Dr. Hillel Laks, director of UCLA's cardiothoracic surgery and head of the transplant program, at his Beverly Hills home, and he agreed with her decision to accept the heart.

Before Minniear had been told that a heart was available, a battery of tests he'd taken previously were begun on the donor. These covered assorted viruses, venereal diseases, hepatitis and acquired immune deficiency syndrome. Donors have been checked for AIDS since August, 1985; recipients have been voluntarily tested at UCLA



Laks, in white, discusses Minniear's case with colleagues after surgery.

Laks drops by after surgery. 'Everything is perfect,' he says with a smile. 'Absolutely perfect.'

since October. Because of the extreme shortage of hearts, a positive HIV test would probably knock a candidate off the recipient list. The immunosuppressant drugs used to fight rejection in a transplant would only speed the course of the disease.

While the tests were run, arrangements had to be made for UCLA's "harvest" team—a surgeon, a surgical assistant and a nurse—to travel to the donor hospital 40 minutes away, and an operating room had to be scheduled at UCLA. The donation of multiple organs meant that as many as six surgical teams and five operating rooms would need to coordinate efforts.

The goal is to keep the donor heart's "ischemic" time—the period when it is without circulation—to four hours or less. Hearts have been flown by Lear Jet from as far away as Nevada and Oregon, with UCLA considering 1,000 miles within safety range. Local hearts are usually delivered by helicopter, but gusting winds this night will force the use of an ambulance. The transplant team hopes that by 7 p.m. Minniear can be in the operating room with his new heart on its way.

The patient is said to be "throwing some PVCs [premature ventricular contractions]"—not unusual, considering the stress he's under—but is otherwise stable. "I'm just a little nervous," Minniear says with a weak smile, his complexion paler and blue eyes darker than before. He stoically portrays the moment as manageable: "If you're not nervous, you're not normal." His leg muscles jump beneath his skin. His hand shakes as he packs his bag.

UCLA Medical Center
6:20 p.m.

"IF HE'S A Kaiser patient, then what's he doing here?" a harried admitting nurse demands as Minniear is wheeled into UCLA's emergency entrance. The paramedics in whose ambulance he's ridden from Kaiser maneuver him to the elevator. His arrival is expected in the heart transplant recovery unit on the east wing of the seventh floor, and no further bureaucratic questions are asked.

Dr. Laks offers a slender hand in greeting. It is the first time he and Minniear have met. A soft-spoken man with a hint of a South African accent, Laks assures his patient of the necessity of the operation. "Your heart is quite dilated and ventriculating. Your chance of living another year is only about 10%."

"Geez," Minniear says, a little stunned. "I didn't know it was that small. But this year it just got worse and worse. I couldn't walk up stairs or lie down without going into v-tach."

A separate tragedy now derails the evening's plans. At 3 that afternoon, a 19-year-old man had been stabbed through the heart with a screwdriver in a gang fight at a Westside shopping mall. The operating room opened for the transplant has been taken for the emergency.

"We're not going to give him your heart," a nurse assures Minniear in an effort at lightness. "But it is slowing things down."

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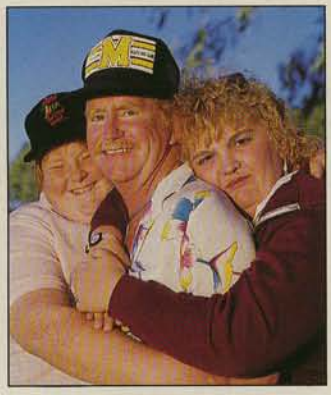
7 p.m.

THE MINNIEAR FAMILY—Marie, Jason, Richard and Wayva—arrives. It was a three-hour drive in the rain to get here, and they

got lost in Westwood trying to find the hospital, but the mood of all is remarkably buoyant. Marie literally comes bounding into the room to plant a kiss on her husband's cheek. Wilmarth, an attractive, unflaggingly cheerful young woman with a master's degree in nursing, takes a moment with them in the visitors lounge to describe the delicate timing involved in the operation. First, the harvest surgeon will open the donor's chest to look at the heart. "If it fails the visual inspection," Wilmarth says, "we won't do the operation." If it passes, a call



Jason, Larry and Marie Minniear, at home in San Diego.

will be made to UCLA's operating room, and Laks' team will begin cutting open Minniear's chest to expose his heart and prepare him for the cardiopulmonary bypass machine.

Because other organs are to be procured from this donor, his heart must be kept intact and pumping until they are removed. Only then can it be clamped off, double-bagged and packed in iced saline solution for travel. The harvest surgeon will personally deliver it in its Igloo Playmate cooler to the UCLA operating room.

Once the donor's heart arrives in the operating room, Minniear's heart will be cut away, leaving only the back wall, aorta and pulmonary artery on which to attach the new one. Laks will prepare the donor heart by trimming the right and left atrium, the aorta and pulmonary artery before sewing it into place. The clamp will be removed from the donor heart's aorta, and blood will flow into it. Meanwhile, Minniear will have been cooled to 82.4 degrees Fahrenheit to slow his bodily functions during surgery.

At this point, Wilmarth explains to the family, his body will be re-

Milestones in Cardiac Care

DEATHS FROM HEART disease in America peaked in 1965, the same year that cardiologists agree was pivotal in treating heart patients. "The mid-'60s are when we actually turned the corner," says Dr. David Cannom, a clinical cardiology professor at the UCLA School of Medicine. "Cardiac catheterization and valvular surgery were in place, and we were beginning to know what to expect when looking at a heart patient." And though life-style changes have helped reduce heart attacks, advances in surgery and medicine have played an important role as well. "We got to the point in the early '70s where we were able to be aggressive in our treatments instead of being solely diagnosticians," says Dr. Jan Tillisch, director of the UCLA cardiac care unit. "There was a change in attitude and a confidence in procedures and new medicine."

Cardiac-care milestones in the past 50 years have increased the life-extending options for the 65 million Americans who will suffer from heart disease this year.

1938: Surgeons repair an undeveloped fetal vessel, a common defect.

Early 1940s: Hypertension is reduced surgically. (The anti-hypertensive drug guanethidine replaces this procedure in 1948.)

1951: Cardiac output, the amount of blood pumped by the heart per minute, is measured in patients with coronary shock.

1952: An externally powered pacemaker is implanted, artificially controlling the heartbeat through electrical discharges.

1954: Surgeons at Peter Bent Brigham Hospital in Boston perform a successful kidney transplant between identical twins. Six years later, doctors successfully transplant a kidney between non-identical twins.

1955: By oxygenating and pumping blood, the heart-lung machine allows for open heart surgery.

1957: Closed-chest defibrillator is used on patients in cardiac arrest.

1960: Stainless-steel valves are used to replace damaged heart valves.

Early 1960s: Immunosuppressive drugs are developed, preventing rejection of transplanted organs.

1966: Isoproterenol is developed; it improves blood flow in patients with heart failure.

Dec. 3, 1967: In Cape Town, South Africa, Dr. Christiaan Barnard performs the first heart transplant. Patient Louis Washkansky, 55, lives 18 days.

1967: Coronary artery bypass surgery is first performed.

Jan. 6, 1968: At Stanford University Medical Center, Dr. Norman Shumway performs the first successful heart transplant operation in the United States on Mike Kasperak, 54, who lives 14 days.

Mid-1970s: Cryocardioplegia, in which donor hearts are preserved for shipment in iced saline solution, is developed, allowing hospitals to accept hearts from greater distances.

1979: Experimental use of cyclosporine begins in the United States. It dramatically increases a recipient's ability to overcome rejection. (In 1983, it is accepted for use by the FDA.)

Dec. 2, 1982: Dr. William De Vries at the University of Utah Medical Center implants the first artificial heart, the Jarvik-7, in retired dentist Barney Clark, 61. He lives 112 days.

Oct. 26, 1984: Dr. Leonard Bailey at Loma Linda University Medical Center in Loma Linda implants the heart of a baboon into Baby Fae, who dies after 20 days.

January, 1986: The California Legislature enacts the "required request" law, ordering hospitals to ask relatives of a patient declared brain-dead to donate the deceased's organs. *—Jill Gottesman*

warmed, and he'll be weaned off the cardiopulmonary machine. "As the body re-warms," Wilmarth says, eyes wide and amazement in her voice, "the heart—*normally*—starts all by itself. It's a miracle!" She catches herself with a laugh. "Every time I talk about it I get goose bumps."

A Crisis Before Surgery

8 p.m.

WHILE WAITING FOR word that surgery is to begin, Minniear goes into his first v-tach since Christmas Day. "That can't be a heartbeat," a nurse says, looking at the zigzag on the monitor. Checking again, she says incredulously, "That's what it is." His heart is pounding at 150 beats per minute, even though he appears normal and passes the time talking to his family. He is given a drug called Pronestyl in hopes of bringing it back to normal. Lidocaine is the drug of first choice for these v-tachs, but Minniear has never responded to it in the past.

"The stabbing victim is taking longer than expected," Wilmarth says. They're going to have to open a second operating room. It's hurry-up-and-wait time.

10 p.m.

THE DRUG ISN'T bringing Minniear's heartbeat down, and there are still problems with the emergency case in the operating room. "So we probably won't be ready to take him down until 10:30," Wilmarth tells Marie. "But we're still in the safety zone. We're not calling it off."

They might have to electrically shock his heart back to normal. "That hurts when they do that," Marie says, her eyes pink and brimming with tears. In the visitors lounge, she lets the tears roll down her cheeks. "I just want this to be over," she says, patting Jason's shoulder as he lies with his head in her lap.

They Almost Lose Him

11 p.m.

THE V-TACH refuses to subside, and Minniear is beginning to pass out from lack of oxygen to his brain. His chest rises and falls with determined thrusts, each breath fogging the oxygen mask that's been placed over his face. "We could lose him," Wilmarth says. "He could go into cardiac arrest. We've got to shock his heart back to normal."

The curtain is pulled close around Minniear's bed. Two defibrillator paddles are placed over his chest, and the crackling sound of electricity is heard as he is repeatedly shocked. The voltage is increased each time until Minniear's heart stops its crazy race across the monitor. The line of green light goes flat for an eerie moment, then kicks back into a familiar pattern of peaks and valleys. All is safe at 103 beats per minute.

11:30 p.m.

THE DONOR HEART was removed at 10 minutes past the hour and in transit by 11:20. The stabbing victim has been brought up from the basement operating room to the recovery room and Minniear, his gurney surrounded by IVs, monitors and a medical entourage, waits at the elevators for his trip down. The family of the stab victim has just been told that his prospects for survival are grim, and they too stand clustered by the elevators, sobbing with grief.

"Your new life will begin tomorrow, Larry." Wilmarth beams, hoping that sedation will protect Minniear from the surrounding hysteria. He smiles bravely, his eyes focused straight ahead.

The Heart Arrives—Into Surgery

Midnight

AFTER A RIDE through the rain-slicked streets of Los Angeles that harvest surgeon Dr. Ali Sadeghi refers to as "very nice, very calm," the heart arrives ahead of schedule. Ideally it would have come as Minniear was put on the cardiopulmonary bypass machine, but circumstances have dictated otherwise. The liver recipient was in a coma and sinking fast, forcing the removal of the liver while the heart transplant team was still waiting for the operating room. The number of hours the donor could be kept on life support had nearly run out as well; he was deteriorating, and there was danger of losing the heart. It had to come out.

NOTHING ATTRACTS LIKE THE IMP O

CORIANDER SEEDS FROM MOROCCO ANGELICA ROOT FROM SAXONY JUNIPER BERRIES FROM ITALY CASSIA BARK FROM INDOCHINA

When it arrives, Minniear is just succumbing to the anesthesia. A couple of members of the surgical team have barely had enough time after finishing with the stab victim to change and re-scrub. Pressure is put on Laks and the eight-member team to work as quickly as possible to minimize the time the heart is outside the body. A further complication: Minniear is a "redo" with thick lesions of scar tissue to cut through.

"Normally, the heart lies completely free within a pericardial sac, which is like a membrane," Laks says. But Minniear's heart will be stuck to the back of the sternum, requiring a far more delicate technique of cutting through the bone with saw, scissors or an electric cautery device while being careful not to cut the heart. It threatens to be slow going.

Monday, Jan. 18, 2:30 a.m.

"GOOD NEWS," Wilmarth says, popping into the visitors lounge. "The heart's in and it's beating and they're coming off pump. They said it was a *great* heart."

A wave of relief passes through the family. Richard hugs his grandson.

Laks has managed to keep the ischemic time, or "clamp to clamp" on the donor heart, down to three hours, and the total for the operation to four. The usual redo takes five. Minniear's time on the bypass machine has been kept to just over one hour. Laks has checked the valves and looked for holes before sewing the heart in. "This looked like a good, healthy heart," he says. Breaking scrub, Laks drops by the visitors lounge to talk with the family and answer their questions. Once they're confident the news is upbeat, Randy Minniear asks about the mechanical valve in his brother's old heart: "He was wondering if he could have it back; he wanted to have it made into a paperweight."

"It has to go to pathology with the heart," Laks says, amused by the request. "But we'll see what we can do."

POST-OP—RECOVERY BEGINS

4 a.m.

MINNIEAR IS WHEELED back into the recovery room. An accordion-pleated respirator tube breathes for him, while a suction device by the bed carries blood away from his chest and a urine gauge tracks his kidney function. IVs drip the drugs dopamine and Dobutrex to control his blood pressure and the immunosuppressants Solu-Medrol and cyclosporine to prevent rejection. The air is filled with mechanical beeps and soft, swooshing sounds that come with the regularity of a pulse.

Barely two hours after the clamp was removed from his new heart, Minniear's eyes open.

"Squeeze my hand," a doctor says. He responds with a squeeze of his hand.

5 a.m.

WARMING LIGHTS are brought in to raise Minniear's body temperature back to normal. His eyelids are taped shut to prevent his eyes from burning. After donning a surgical cap, gown and rubber gloves, Marie is allowed to enter the room. She stands hesitantly by the bed, holding her husband's hand. When it comes time to leave, she says,

"I'm going to go now, Larry." He shakes his head and tightens his grip on her hand.

6:30 a.m.

THE NIGHT'S STORM, one that has left the coast in shreds, has passed, and it dawns a remarkably beautiful Southern California day. The air is clean, the winter sky a clear, sinful blue, and the mountains have been freshly dusted with snow. The weather mirrors the emotional high that members of the transplant team have said they experience, a sense of renewal and well-being that comes with helping someone to a second chance at life.

EVERYTHING IS PERFECT

6 p.m.

MINNIEAR'S BREATHING tube was taken out earlier in the afternoon, and he's able to talk, though an oxygen mask remains in place. "When I concentrate," he says, "I can feel my heart. It's beating strong."

Laks drops by for a postoperative visit. "Everything is perfect," he says with a soft smile. "Absolutely perfect."

Wednesday, Jan. 20, 6 p.m.

NEARLY ALL THE tubes are gone, and Minniear is sitting up in bed, watching television. The only real pain he's experienced, he says, was when the two tubes were pulled from his chest. That took a shot of morphine to overcome, but otherwise he's getting by on Tylenol with codeine. Because there are fewer nerves and muscles across the chest, heart surgery in general is surprisingly less painful than, say, an appendectomy.

Minniear is feeling an odd mixture of emotions that he finds hard to talk about. He says he worries about his father having to take care of his mother while helping with Minniear's family. It tires him, thinking about it, and he is left to drift back to sleep.

Friday, Jan. 22, noon

"HI, SWEETIE," Minniear says with a wave of his hand as he recognizes a visitor. This morning he's taken a walk down the hall to the visitors lounge and back. "People can't believe I'm doing so well," he says as he prepares to dig into a lunch of salad, spaghetti, rolls and dessert. He's been told he can eat almost anything when he gets out of the hospital, as long as it's moderately low in fat and salt. He also gets to have an occasional glass of wine or beer, something he hasn't indulged in since his mechanical valve operation 12 years ago.

"I'm not going to complain about a thing, so they'll let me out of here," he says with a laugh. Patients have gone home six days after their transplants. Minniear might come close to that record. He's been told that he could be released after his first biopsy, scheduled for Monday, one week after the operation. A local anesthetic will be applied to his neck, a thin tube will be inserted in his jugular vein and a forceps will retrieve heart tissue to check for signs of rejection. He will have to have this done weekly for the first month.

Minniear's recovery is unusually

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quick, but the room next door holds a less hopeful sight. John Ducin, 65, sits slumped in his chair, the respirator tube still down his throat nearly three weeks after his transplant operation. He is older than Minniear, and he has suffered more extensive heart disease for a longer time. His wife, Jean, a retired nurse, spends her days at his bedside.

"They don't know if he's going to make it or not," she says with the authority of a nurse and the weariness of a wife. "I wouldn't want to do this again, but I wouldn't *not* recommend it. I wouldn't want to deny anyone a chance at life."

(Ducin died Feb. 8.)

GOING HOME TO A NEW LIFE

Tuesday, Jan. 26, 1 p.m.

MINNIEAR PASSES his biopsy without a sign of rejection and his doctors tell him he can go home.

Cheryl Westlake, then one of the transplant program's two coordinators (she has since left UCLA), has come to Minniear's room to brief him and Marie on home care. She explains that his new heart won't respond as quickly as the old one to the increased demands of exercise and strenuous tasks. The vagus nerve that would normally carry the message from the brain telling the heart to pump faster has been cut. The hormones in his blood will have to pass the word along now, requiring warm-ups for most activities. And he also won't feel any warning chest pains should he develop coronary artery disease.

He'll have to take the immunosuppressants Solu-Medrol, cyclosporine and Imuran for the rest of his life to keep his immune system from rejecting the heart as a foreign body. Marie is urged to watch this closely. One of the drugs' side effects is depression, and patients have stopped taking them when depressed. Three UCLA patients have died from rejection episodes as a result.

Wearing a baseball cap, and a surgical mask to protect him from infection, and with a bit of incision sticking out the top of his V-neck sweater, Min-

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niear rides a wheelchair out of the hospital.

Back home in San Diego, a reporter from a local television news program is waiting to greet him. The banister of Minniear's apartment complex is lined with helium balloons decorated with hearts. "I won't go into v-tach now," he says, wiping at his eye and pausing before taking his first step up the stairs.

He settles into his favorite easy chair, the one with the bowling certificates and an "I'd Rather Be Bowling" sign hanging behind it. Jason bowled a 223 while his father was in the hospital, sneaking up on Minniear's personal best of 226. "I'm going to have to get back out there pretty quick," he jokes. He's been told it could be as early as six weeks.

The family and neighbors who've gathered around are excited and a little nervous, not quite sure how fragile his condition might be. "Go ahead, give him a hug," Randy Minniear tells a hesitant child. "He's got a mask—it's OK." Larry Minniear assures them that his new heart isn't about to break. "Compared to the other one," he says, a measure of surprise in his voice, "it just pounds."

'I FEEL LIKE A KID AGAIN'

The Minniear Home, San Diego
Friday, Feb. 26

AS A REMINDER of the troubles that are now behind him, Minniear's got his old mechanical valve back and is waiting for it to be made into that paperweight. He's doing so well with his new heart that he's been allowed to skip at least one biopsy. Though he still vows not to do any jogging or running, he's been walking four and five blocks a couple of times a day. He does the dishes and, three days before his six-week anniversary date, he intends to drive his truck for the first time.

There are plans to send a thank-you card to be forwarded to the donor's family. "All I can say is thanks," he says, at a genuine loss for words. "It's been real helpful to me, and to my family. I feel the best I ever have. I feel like a kid again." ▬

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