

# Jackson clinic to offer new artificial leg 'for active people'

DAVID PHILLIPS  
Miami News Correspondent

Dr. Robert Green was 10 years old when he lost a lower leg in a farm accident. For 56 years, the weight and poor fit of his artificial leg made

it impossible for him to experience the simple joy of running.

A year ago, that changed.

Within months of being fitted with a newly developed artificial leg made of an ultra-light graphite material, Green also began hitting golf balls as

far as he always had thought he should.

"I can't run real fast, but I can take my dog out for a walk and trot along with him. I used to have to drag my artificial leg," said Green, an orthopedic surgeon. "I could never drive the golf ball as far as I

thought I should, because I couldn't put my weight on my artificial leg. Now I can put weight on the leg and get a full swing."

High-tech artificial legs like Green's soon will be available for

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patients at Jackson Memorial Hospital's prosthetics clinic.

Known as the Endolite system, the leg is available from four private prosthetists in South Florida, but Jackson will be the first hospital clinic offering it. That will help make the new prosthesis more widely available and will reduce the cost, said Oscar Ortiz, who heads the Jackson prosthesis lab. While the price varies from patient to patient, the cost can be as much as \$8,000, including fitting and therapy, according to Ortiz.

"We heard about the system a year ago," Ortiz said. "It seems to be the best thing going for active people."

Ortiz and technician Jose Nunez are planning to take a three-day course in April to learn the different ways the system may be adapted to amputees, and how to match the correct component with a particular patient.

The course is conducted by Alan Finnieston, a Coral Gables prosthetist who has been using the system since 1986 and has trained 145 prosthetists from across the United States.

"More has happened in the advancement of prosthetics in the last five years than in the previous 25 years," Finnieston said. "The Endolite system is the state of the art. It's light, it's extremely strong, and it can be changed as the patient changes."

Ortiz said the graphite material offers superior strength at half the weight. The Endolite system includes different knee components, some of which incorporate a pneumatic shock absorber, de-

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— Alan Finnieston

signed to flex like a knee when the person sits or runs.

The new limbs have a ball joint in the ankle that allows a natural range of motion. The joint can be adjusted for a tight or loose movement.

With his old prosthesis, Green said, he had to wear a thick wool sock to prevent abrasion. He no longer does, because the new sockets are made of a more flexible plastic.

Green said the new leg has helped him with everyday things. Because of its lightness, Green can be on his feet for 12 hours without suffering from fatigue, when he used to tire after a few hours, he said.

"There are a lot of things that people with two feet take for granted," Green said. "For instance, whenever I would approach a curb, I would have to step down with my good leg first. Now I don't have to do that."



The Miami News — MURRY SIL

Alan Finnieston trains prosthetists to use the new limbs

ARTHUR FINNIESTON  
PROSTHETICS + ORTHOTICS

# Young Kennedy: Disabled seek rights

By FELICIA R. LEE  
Herald Staff Writer

Ted Kennedy Jr., in Miami Saturday to get fitted for a new part for his artificial leg, said disabled people are engaged in a struggle much like that of blacks in the 1960s and women in the 1970s.

"We don't want charity; we want rights," Kennedy said. "People with disabilities have been segregated throughout history. We want to become part of the mainstream. We want to ride the same buses and go to the same schools as anyone else."

Kennedy spoke to reporters outside the offices of prosthetics designer and fitter Alan Finnieston, in Coral Gables.

The 25-year-old Kennedy, founder of a civil rights group for the physically challenged, lost his leg to bone cancer 13 years ago. Two and a half years ago he was fitted with an artificial leg that is considered revolutionary — it is lighter and more flexible than the old types of prosthetics.

Finnieston, John Sabolich of Oklahoma City and Thomas Guth of San Diego developed the design principles for the prosthesis. Finnieston worked up the material application.

Constructed of graphite, titanium, silicon and polyethylene and held together by aircraft epoxy, the prosthesis is designed for people with amputations above the knee. It is known as the CAT-CAM socket.



MICHEL duCILLE / Miami Herald Staff

**Ted Kennedy Jr., right, shows his artificial leg to Jonathan Woliner, 3, and the boy's parents, Guillermo and Miriam.**

Kennedy has publicized the advantages of the new leg, which he says feels more real than his previous prosthesis.

"It's a lot more comfortable and allows people to live a lot more comfortably and do more than they have," Kennedy said.

Also on hand was Greg Mannino, 24, America's top-ranked physically challenged skier and Cat-Cam amputee athlete of the year. He and Kennedy have skied together, and Mannino demonstrated how he can run at almost a normal gait with the new leg.

Kennedy said there is much society can do to make life easier for people with disabilities.

"Basically, what you're dealing with are attitudes," he said. "Like racism and sexism it won't go away overnight. The architectural barriers are being eliminated to allow people to be viable and visible so others can see we are part of the community."

"People still feel sorry for people with disabilities. It's still considered a tragedy. It shouldn't be that way."

Kennedy is founder and director of Facing the Challenge, a Boston-based advocacy group. The organization is working with 300 corporations in Boston to expand job opportunities for physically challenged people. Kennedy also wants to see legislation to eliminate what he calls disincentives to work.

"If you take on a job, you lose your medical benefits," he said. "We're also working on such issues as architectural accessibility and the use of sign language at public meetings."

After talking to reporters, Kennedy spent a few minutes with 3-year-old Jonathan Woliner of Caracas, Venezuela, who lost his leg from a knee fungus infection. The little boy was fitted with a prosthesis two weeks ago.

"You've got your Reeboks on, too," Kennedy said to Jonathan. Jonathan lifted up his pants leg to show off his leg.

Jonathan's parents, Guillermo and Miriam, said Jonathan is doing fine.

# High-tech retools prosthesis business



Manufacturer Alan Finnieston demonstrates the inner workings of a prosthetic leg.

By BEA MOSS  
Herald Staff Writer

The near perfection of today's artificial limbs comes from knowledge gained through aerospace technology and other modern methods.

But not everyone can afford today's high-tech wonders, and many amputees must settle for less.

Depending on their degree of sophistication, prostheses can cost from \$6,000 to \$25,000 for a lower extremity and from \$3,000 to \$45,000 for an upper extremity, said Alan Finnieston of Arthur Finnieston Inc. in Coral Gables, a firm that has manufactured artificial limbs since 1928.

"That's for total prosthesis rehabilitation from preparatory to completion," Finnieston said. "It depends on the level of amputation, the number of fitting problems, the feet, knee joints, sockets and materials."

The first step is consulting and evaluating patients to see what their physical capabilities are.

"We work closely with the physical therapist to see if the patient is a candidate for a prosthesis," Finnieston said.

When an amputee is ready to be fitted, usually from three to six weeks after the loss of a limb, molds and measurements are taken of the remaining portion of the extremity and also of the normal side.

After the mold work is done, the fitting begins.

"The prosthetics we're using

today are Endolite. This system is aerospace graphite fiber technology developed by a company in England nine years ago and supported by the English government," Finnieston said.

It's one of the biggest advances in the field of prosthetics in the last 27 years, he said.

Today's improved surgical techniques, he said, provide a much better residual limb.

"Doctors are able to save more limbs below the knee now, and patients can be rehabilitated quite well. Above-the-knee amputation is more difficult to fit," he said.

The prosthesis must be changed from time to time because of changes in the limb that affect the fitting of the socket.

Most amputees, Finnieston said, end up with some type of prosthetic system. If the patient relies on insurance, the kind of prosthesis depends on how the insurance policy is written, he said.

Ron Cartaya, an adjunct professor at the University of Miami School of Medicine and owner of Ron A. Cartaya Orthotics and Prosthetics in West Dade, said patients are fitted with prostheses that are compatible with their life styles before losing the limbs.

"Within the past eight years, the most sophisticated limbs have been developed," he said. "We can use more durable, more useful materials."

By ETIENNE DUPUCH

YESTERDAY I reminded you of the tremendous volunteer work a medical team in Coral Gables, Florida did for crippled children in the Bahamas for 19 years while I was the founder-chairman of this organization. Three doctors...Dr Charles R Burbacher, Dr Walter Jones III and Dr John Kilpatrick were the medical men, while Mr Arthur Finnieston was the prosthetist who fitted limbs and made braces for both crippled children and adults.

This organization was originally formed to help crippled children but the public was so generous in supporting the work that the committee was also able to help adults who had lost a limb and to provide specialist treatment for adults who needed this kind of attention but were unable to afford it.

These were really splendid men. The things they did for our children, especially those who were taken to the Children's Variety Hospital in Coral Gables for an operation is beyond my power of description. Some of their successful cases impressed me as being nothing short of a miracle.

Dr Burbacher, Dr Kilpatrick and Mr Arthur Finnieston are now retired, but Dr Jones III has bought a new building and continues to carry on a lucrative practice.

At the time the team was working in Nassau young Alan Finnieston was an under-study to his father. On his father's retirement Alan took over the business. His father pays a short daily visit to the "works" but he tells me that Alan has developed the business to such a high technical level that it is now beyond him. This has been my experience in The Tribune. There was a time when I could perform any function on this newspaper but the Carrons...my daughter Eileen and her husband Roger...have taken the operation to such a high technical level that the only thing I am capable of doing for The Tribune today is to produce this daily column, which I hope is a worthy contribution to the overall operation.

In the case of Alan he has achieved international fame for himself by creating...along with two other practitioners...a completely revolutionary limb for a person who has lost a leg above the knee. It is so constructed that a young amputee, fitted with this limb, is actually able to play a moderate game of football.

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In its issue of Sunday, January 5th, The

## The Tribune Limited

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Published Daily Monday to Saturday

Shirley Street, P.O. Box N-3207, Nassau Bahamas.  
9B Kipling Bldg., P.O. Box F-485, Freeport, Grand Bahama.

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## Alan Finnieston wins fame

Miami Herald described this new device in a story written by Jeff Leen, Herald Staff writer, under the heading "Leg Device Flexes Amputees Options." The accompanying picture shows how the leg is constructed, bending at the knee like a normal limb.

The quarterback dropped back to pass, back-peddalling on two artificial legs. The pass rusher lurched forward on one artificial leg, hands high. The wide receiver, his artificial leg pumping in unison with his good leg, ran by a defensive back on crutches. Pass completed.

All 10 football players at Pelican Harbour Park on the 79th Street Causeway Saturday were missing at least one leg, victims of bone cancer and auto accidents. They came to play to prove a point: That they can lead normal lives.

"The whole message is getting across that handicaps can't be beat," said Peter Thomas, 21, who was playing quarterback while on break from Boston College, where he is president of the student body.

Thomas and the nine other young men, who travelled to Miami from all over the

country, are members of the "CAT-CAM team." They will be visiting hospitals in cities around the country to show off a state-of-the-art prosthesis developed from aerospace technology.

Constructed of graphite, titanium, silicone and polyethylene held together by aircraft epoxy, the prosthesis is a super-light leg joint designed for people with amputations above the knee. Known as the CAT-CAM socket, the prosthesis is more flexible and lighter - about six pounds compared to 14 - than the traditional quadrilateral prosthesis, CAT-CAM proponents say.

The technology is the brainchild of three certified prosthetists - John Sabolich of Oklahoma City, Thomas Guth of San Diego and Alan Finnieston of Coral Gables. Sabolich and Guth developed the design principles for the prosthesis and Finnieston worked up the material application.

"This is the most dramatic advance in prosthetics that I've seen in 26 years," said Finnieston, a 46-year-old Miami native.

Finnieston said the device, which can be designed for adults as well as children, costs

between \$4,000 and \$14,000, including therapy and fitting.

To the amputee, the main benefit of the new prosthesis is that it allows a person to walk "leg over leg" instead of having to swing the artificial leg to the side of the body, Finnieston said.

"The old quadrilateral socket continually jams under the leg," said Thomas McCormack, whose 16-year-old son, Douglas, was out there playing wide receiver and wrestling. Doug's left femur was amputated two years ago, and only two inches of leg bone remain.

When Doug's cancerous leg was removed, doctors told the McCormacks that his son would only be able to "hop, step and jump" on a prosthesis.

"You can't realize the frustration," Tom McCormack said.

Then in 1984, McCormack read a story in a newspaper about Edward M Kennedy Jr, son of Sen Ted Kennedy, being fitted with a new kind of artificial leg in Oklahoma City. He and his son caught a plane.

Dan Calabro, a 19-year-old marathon runner from Warwick, R I, who also lost a leg to cancer two years ago, thought his first artificial leg - a quadrilateral - was a joke.

"It couldn't keep up with my right leg," he said. "The CAT-CAM keeps up with my right leg."

Then he ran off, a little slow but still running, to play some more football.



# Leg device flexes amputees' options

By JEFF LEEN  
Herald Staff Writer

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There is another story of importance that is now receiving wide publicity, both in the US and Europe, of the achievements of Alan Finnieston, who for 19 years worked along with his father, Mr Arthur Finnieston, in helping crippled children in the Bahamas. The Finniestons were a part of the team that gave their services to the Crippled Children's Committee which I founded and headed for 19 years before I decided to leave the Bahamas and spend most of my time in foreign travel.

Since then Alan Finnieston has achieved international fame and is now recognized as one of the most important designers and producers of artificial limbs in the world. Mr Finnieston broke into the news again...in the press, on the radio and TV...when he recently fitted his most modern leg to Ted Kennedy, Jr, who lost the limb to cancer 13 years ago. Following is a story about this event that was published in The Miami Herald:

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Herald Staff Writer

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