

campus calendar

Compiled by
Tenley Ayers

Public service announcements must be turned in to the box outside the DTH offices in the Union by 3:30 p.m. if they are to run the next day. Each item will run at least twice.

Activities Today

Alpha Phi Omega Service Fraternity announces its Spring Formal Rush from 7 p.m. to 9 p.m. Tuesday, Jan. 18, in the basement of Smith Building, in the APO complex. Men, women, Greeks and non-Greeks are all invited to participate.

The **Alpha Kappa Alpha Spring Rush** will be at 8 p.m. Tuesday, Jan. 18, in Rooms 213-215 of the Carolina Union.

The **UNCCC Short Course** on "Introduction to the UNC Computation Center" will be at 3 p.m. Tuesday, Jan. 18, in 228 Phillips Hall.

The **Campus Course Review** needs helping hands. Come to the meeting at 7 p.m. Tuesday Jan. 18, in Room 209 of the Carolina Union.

There will be a meeting of the **UNC Table Tennis Club** at 6 p.m. Tuesday, Jan. 18, in the women's gym. This semester's schedule will be announced and ladder play will begin. All members and anyone interested please attend.

The **Walk for Humanity** will be planned at an open organizational meeting at 7:30 p.m. Tuesday, Jan. 18, in the YM-YWCA Building.

The **UNC Young Democrats** will meet at 8 p.m. Tuesday, Jan. 18, in Room 207 of the Carolina Union. Free beer will be provided for the first meeting of the semester.

Alpha Epsilon Delta, the premedical and pre dental society, will meet at 7 p.m. Tuesday, Jan. 18, in 103 Berryhill Hall. The program will be entitled "How to Pay for Medical or Dental School."

YOGA offers its first yoga class of 1977 from 7 p.m. to 9 p.m. Tuesday, Jan. 18, in Room 213 of the Carolina Union. Wear loose, comfortable clothing. Everyone is welcome.

Botany 96 students working with Willie Koch will meet at 2 p.m. Tuesday, Jan. 18, in 309 Coker Hall.

Upcoming Events

Women's Varsity Softball will have an organizational meeting at 3 p.m. Wednesday, Jan. 19, in 207 Woollen Gym. Attendance is important—bring insurance policy number.

All persons interested in becoming a **volunteer at John Umstead Psychiatric Hospital** should attend an important meeting at 7:30 p.m. on either Wednesday or Thursday, Jan. 19 or 20, in 108 Bingham Hall. For applications and further information, contact the Campus Y.

The **UNC Veterans Club** will hold their organizational meeting for spring semester at 7 p.m. Wednesday, Jan. 19, in Room 106 of the Carolina Union. All veterans are encouraged to attend. Refreshments will be provided!

ECKANKAR International Student Society presents a panel discussion on "ECKANKAR, The Path of Total Awareness", at 7:30 p.m. Wednesday, Jan. 19, in Room 209 of the Carolina Union. Everyone is welcome.

C. Bradley Moore of the University of California at Berkeley will speak on "Selective Photochemistry and Isotope Separation with Lasers" at 11 a.m. Wednesday, Jan. 19, in 308 Venable Hall. Sponsored by the **Department of Chemistry**.

There will be a meeting for all people interested in forming a **UNC Frisbee Club** at 8 p.m. Wednesday, Jan. 19, in Room 206 of the Carolina Union. If you are interested, but cannot attend the meeting, call Rob Wilkins at 968-9182.

Tickets for the **UNC-Wake Forest game** will be distributed at 5 p.m. Wednesday, Jan. 19, at Carmichael Auditorium.

Planners Forum presents Kurt Jenne, town manager of Chapel Hill, at 7:30 p.m. Wednesday, Jan. 19, in Room 102 of New East. The topic will be on "Planning and Politics."

The **North Carolina Student Legislature (NCSL)** will have a delegation meeting at 8:30 p.m. Wednesday, Jan. 19, in the Frank Porter Graham Lounge in the Carolina Union. All members are urged to attend this very important meeting.

State Senator Carolyn Mathis (R-Mecklenburg), vice-chairperson of the Senate Committee on Educational Appropriations and noted proponent of the Equal Rights Amendment will speak on the ERA, women in politics and related topics at 7:30 p.m. Wednesday, Jan. 19, in Room 209 of the Carolina Union. The **UNC Young Republicans Club** has invited everyone to attend.

The **UNC Karate Club and American Tae Kwon Do Association** will have an introductory meeting and film at 7:30 p.m. Wednesday, Jan. 19, in Room 215 of the Carolina Union. All interested men and women invited.

Women's Self-Defense—an introductory meeting and film at 6 p.m. Wednesday, Jan. 19, in Room 215 of the Carolina Union. Offered by the UNC Karate Club and American Tae Kwon Do Association.

The **N.C. Coastal Club** will meet at 7:30 p.m. Wednesday, Jan. 19, in the Great Hall balcony of the Carolina Union. Simmon Baker of the Sea Grant College will speak and show a movie on the N.C. coast. Spring plans will also be made. Everyone interested is invited to attend.

The **Senate of the Graduate and Professional Student Federation** will hold their monthly meeting at 7:30 p.m. Wednesday, Jan. 19, in Room 217 of the Carolina Union. All treasurers and representatives are urged to attend.

Items of Interest

The **Carolina Union Information Desk** is undating its information files. Any student who needs to change an address or phone number should contact the desk. Call 933-3758 or come by the desk between 7:30 a.m. and 11 p.m. daily.

Aspiring artists—the **Student Consumer Action Union** needs art work for the cover of its apartment guide, *The Southern Part of Heaven*. Interested persons should contact SCAU in Suite B of the Carolina Union. (933-8313)

Auditions for the **UNC Wind Ensemble** are now being held. Especially needed are oboe, euphonium, tuba and string bass. Non-music majors are welcome. For more information, contact David Reed in 109 Hill Hall, 933-2270.

Students who did not have their portraits taken last semester for the 1977 Yackety Yack, will get a chance during the first two weeks in February. Appointments will be made from 9 a.m. to 5 p.m. all next week near the Union desk and from 9 a.m. to 1 p.m. all next week at the Y-court.

Bowling Leagues are now forming at the Carolina Union Bowling lanes for all types of bowlers, including beginners. Call 933-4131 or come by and sign up.

All students interested in **volunteer work** at N.C. Memorial Hospital are required to sign up from 9 a.m. to 7 p.m. Monday and Tuesday, Jan. 17 and 18, in Room 106, first floor of the hospital in the Volunteer Office. If you have questions call 966-3136.

Amputee victims receive new hope with successful digital replants

by Elizabeth Swaringen
Staff Writer

A 6-year-old boy accidentally gets his right hand into an electric fan, and the index finger is severed immediately. Six months later he is able to pick up pennies and paper clips between the thumb and the index finger with ease.

A 15-year-old male has his right thumb successfully replanted after it was severed while water skiing and found three hours later on the lake bottom. Today it is difficult for an untrained observer to tell the thumb was ever removed, because only small scars remain, and near-normal use has been retained.

A woman in her twenties literally had the four fingers of her left hand snapped off by a horse when she was riding bolted. Today the fingers are healing and she is regaining the use of her hand.

About five years ago there was little hope of saving these persons' amputated digits, but within the past two years about 70 people have successfully undergone digit replantations at Duke University Medical Center and returned to the everyday world with use of those digits.

The major problem associated with amputations between the hands and the finger tips is that the veins and arteries are so small that it is nearly impossible to keep both open after they have been disconnected from the body.

Arteries bring blood from the heart to the digits, and veins take it back to the heart. Both types of vessels are needed for a complete circulatory system to keep the severed extremity alive.

Laboratory work in this field began in 1972 at Duke when a dog's rib with vessels attached was transplanted into the animal's foreleg. Amazingly, the vessels stayed open, and the operation was a success.

A similar operation, involving a cat's arteries, also was successful, even though the vessels were considerably smaller. Practices of this nature on small animals continued for the next year and one-half.

The surgeons then graduated to clinical work on humans with partial amputations, which are cases where something besides the vessels is left connecting the fingers to the hand. Shortly thereafter, the first successful thumb replant was recorded.

The operations are by no means simple, as they are all performed under microscopes of 10 to 50 power magnification. They generally require five to seven hours, depending upon the extent of the damage and the age of the amputee.

A minimum of four orthopedic surgeons is necessary and each generally has taken at least one year of study and practice to become proficient. The surgeons work in two teams, one with the severed digit and the other with the hand.

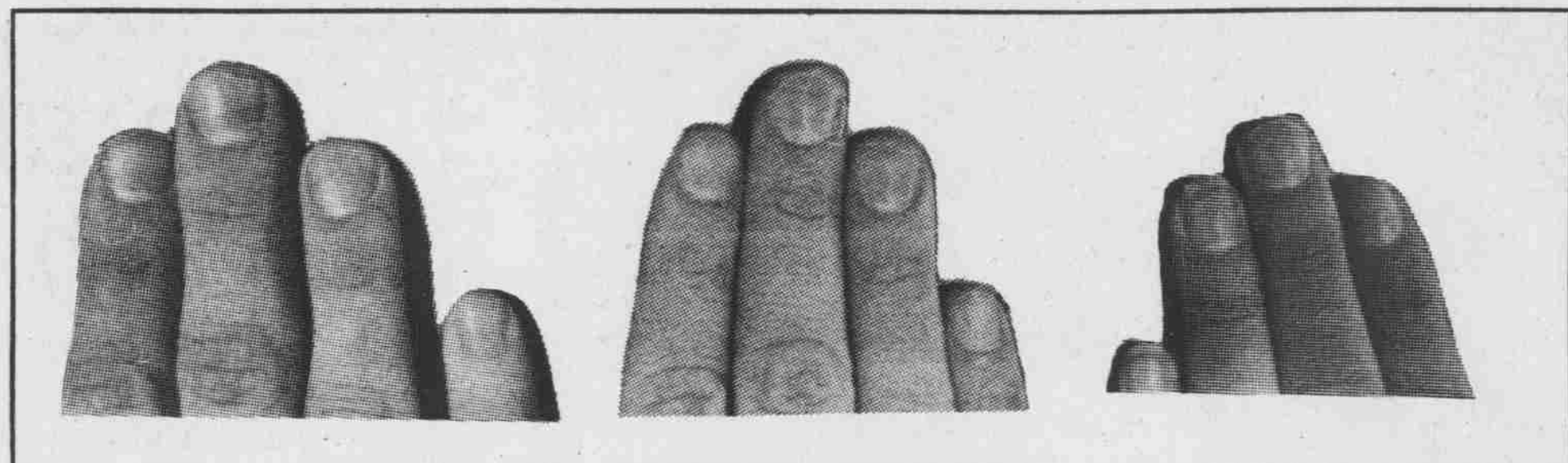
The surgeons working on the finger begin on the front side, probing for the two nerves and two arteries found therein. Having located them, the surgeons go to the backside of the digit and look for the four veins.

When a digit is amputated the tendons that control straightening and bending sometimes are drawn back into the digit, and the surgeons must locate them as they did the vessels, and pull them into view.

Generally the bones are cut, leaving sharp edges which must be gently clipped and smoothed so that the bones will grow together more naturally.

While all this is being done to the digit, the second team is following the same procedure with the hand, making sure all the necessary parts are there to connect.

The two parts, the hand and its severed digit, are now brought together, and a small



metal rod known as a pin is inserted through the amputated portion and into the hand, in order to hold them together.

The exterior tendons that allow one to straighten the fingers are sewn together for stability. On the front side the nerves, which will grow about one twenty-fifth of an inch a day, are likewise connected.

So far the operation is all routine—nothing different from setting a broken bone, or connecting tendons or nerves that have been pulled or torn.

It is at this stage, in connecting the arteries and veins, that the new micro-surgery, perfected over the past two years, begins.

Small clamps known as sutures are placed on each end of the artery to halt the blood flow. The ends of the arteries are clipped to provide a smooth working edge; otherwise the arteries will not mend properly.

At the same time, the arteries are cleaned out and the excess blood wiped away, leaving the vessels looking like translucent pipes.

The smallest needles and the finest threads possible are now used to connect, with seven or eight stitches, the arteries, which are less than one twenty-fifth of an inch in diameter. The veins are then connected in a similar manner.

After the vessels are sewn together, a shot, called a stellate block, is administered through the patient's neck to send more blood to the extremity. The medication is nothing more than zolocene, the numbing medicine dentists use when preparing their patients' mouths for painful dental work.

The sutures are removed, and blood literally gushes from the hand into the replaced digit. The connection leaks at first, but only until the blood begins moving freely.

The surgeons gently pull the artery to make sure the stitches are secure, and observe pumping motions through the vessel at the connection, in order to make sure all is operating properly.

Within a matter of seconds, the once sickly white amputated digit is pink, indicating that it is once again a living thing. By far this is the most exciting part of the operation for the surgeon.

The point of amputation generally swells as the skin is closed, because of a buildup of pressure. At this stage the surgeons make a small incision on the side of the severed digit, to relieve the excess pressure.

The external skin is only partially sewn together, for it closes itself generally with no problem.

The wound is then dressed; it is opened in three weeks. From the elbow down, the patient's arm is in a cast-like support, making it about twice its normal size.

As the wound begins healing, which occurs generally without many scars, the flexor tendons are worked on, so that the patient can begin bending his fingers again. Only the extensors were connected previously, for stability while healing.

Surgeons generally get the best results

from replacing thumbs, because of their location on the hand. They are also the best candidates for the operation, since thumbs in combination with one or more digits are used for more things than any combination of other digits.

Although the vessels in children's fingers are the tiniest, they are the best candidates of

all for success, because the tissues are young, and will grow as the child grows.

Even though the success of the operation depends on the age of the patient and on which digit was removed, a main consideration remains the condition in which the digit was when received.

Obviously, the badly crushed and roughly

cut amputation causes the greatest problem, for extra smoothing and care of the surrounding tissue is necessary.

Even though a digit may be badly mutilated, its chances of being saved are obviously greater when the time lapse between accident and operation is minimized.

The maximum length of time thus far has been 17 hours, and then the digit was packed in a saline (salt) ice pack while being transported to the medical center.

The amputations are generally seasonal, as more outdoor activities are undertaken in warmer weather.

The leading cause of amputations, especially among men, is power saws. Among children electric fans and axes are the main culprits. In one reported case, a dog bit off a portion of a child's finger as well.

Most of the cases at Duke are from the Southeast, but one has been recorded from as far away as North Dakota, with arrival by commercial airline.

Only a few other centers in the nation are

equipped to handle digit amputation, but within the next year groups from other areas will be coming to Duke, in hopes of mastering the delicate technique.

DTH Classifieds

FOR SALE

ADD \$1.50 TO THE PRICE OF ANYTHING USED AND SELL IT TOMORROW WITH A CLASSIFIED.

1963 Chevrolet Nova S.S. Convertible, 68,000 miles. Red with black interior and top. Automatic on floor. Best offer, 929-1241 between 6 & 10 p.m.

For sale, 1962 Plymouth. Excellent condition. New battery. New points and plugs, new paint job and new carpet. \$400. 929-8034.

ACADEMIC RESEARCH PAPERS. Thousands on file. Send \$1.00 for your 192-page, mail order catalog. 11322 Idaho Ave., #206H, Los Angeles, Calif. 90025 (213) 477-9474.

FOR RENT

Granville East Contract for Sale for this semester. \$75.00 discount. Call 933-1873. Ask for Rita.

For sale: Kenan dorm room contract. For information call 942-6368 or 933-1414. Ask for Margaret Wheeler.

2 roommates wanted. Very nice house in country, 5 minutes from UNC. Quiet, den w/firplace, beautiful kitchen, reasonable. A nice country setting at end of dirt road. Call 544-3044 after 6:30 p.m.

Partially furnished room 1 block from campus w/b.r. and kitchen privileges in exchange for 15 hrs./week babysitting. 929-6185 after 5.

MISCELLANEOUS

Lost-Black leather key case, containing three or four keys. If found, please call 933-8852. REWARD!

Will share extensive knowledge about ceramics/glazes/films with anyone willing to do dirty work (help mix glazes, load fire kilns) Art Dept., Mike 933-0240.

Wanted: Special person for possible serious relationship. I am 35, 6-4, 215, Ph.D., very financially secure, heavily published writer and researcher. Travel worldwide. Success oriented but very lonely. Fairly handsome if that's important. Write Box 12579 R.T.P., N.C. 27709 or call 544-7571, evenings. Age unimportant.

STUDY AT OXFORD THIS SUMMER. Earn up to 6 sem. hrs. of credit. Courses: Shakespeare, Modern British Novel, Philosophy of Religion, Medieval England, Britain Today; Critique, Room, board, and all fees for 4-week term: \$575. Contact the Office of International Studies, The Univ. of North Carolina at Asheville, Asheville, N.C. 28804. Phone 704/258-0200.

EARN TAEKWONDO—Korean Karate—for sport, art or defense. Other styles welcome. 7:30 MWF. James Dorm lounge. Classes begin Jan. 17. First lesson free.

Burlington-Graham residents: Campus employee working 8:30 a.m. to 4:30 p.m. wants to carpool with students or employees with same hours. Call June at 933-1056 or 228-7453 after 6 p.m.

Tar Heel Classifieds Cost Only \$1.50

And they reach over 20,000 potential buyers and sellers daily!

The Daily Tar Heel is published by the University of North Carolina Media Board, daily except Sunday, exam periods, vacations, and summer sessions. The following dates are to be the only Saturday issues: September 18, Oct. 18, Oct. 25, Nov. 13, Nov. 20.

Offices are at the Student Union Building, University of North Carolina, Chapel Hill, N.C. 27514. Telephone numbers: News, Sports—933-0245, 933-0246; Business, Circulation, Advertising—933-1163.

Subscription rates: \$25 per year; \$12.50 per semester.

The Campus Governing Council shall have powers to determine the Student Activities Fee and to appropriate all revenue derived from the Student Activities Fee (1.1.1.4 of the Student Constitution).

The Daily Tar Heel reserves the right to regulate the typographical tone of all advertisements and to revise or turn away copy if it considers objectionable.

The Daily Tar Heel will not consider adjustments or payments for any typographical errors or erroneous insertion unless notice is given to the Business Manager within (a) one day after the advertisement appears, within (1) day of receiving the last sheets or subscription of the paper.

The Daily Tar Heel will not be responsible for more than one incorrect insertion of an advertisement scheduled to run several times. Notice for such correction must be given before the next insertion. Verna Taylor Business Mgr.

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