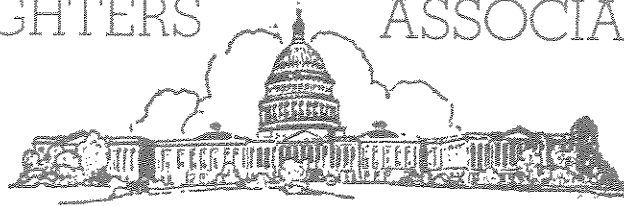


FIRE FIGHTERS ASSOCIATION



LOCAL No. 36
INTERNATIONAL ASSOCIATION
of FIRE FIGHTERS



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STATEMENT OF DANIEL DUGAN, PRESIDENT

**D.C. FIRE FIGHTERS ASSOCIATION,
LOCAL 36, OF THE INTERNATIONAL ASSOCIATION
OF FIRE FIGHTERS, AFL-CIO-MWC**

October 15, 2007

Good Evening,

Members of the Milwaukee City Council and staff...my name is Lt. Dan Dugan and I am a 20 year veteran of the District of Columbia Fire & Emergency Medical Services Department...and assigned to Ladder Tower 3...located in the center of downtown Washington, D.C.

According to the Annual National Run Survey conducted by Firehouse Magazine my Ladder Company ranks number 10 among the busiest Ladder Companies in the nation... logging in 3271 emergency responses during 2006. We also have the distinction of being "first due" at 1600 Pennsylvania Avenue, the residence of the First Family.

I am also the President of the District of Columbia Fire Fighters Association, Local 36, of the International Association of Fire Fighters.

I feel certain that by now...some of you are thinking to yourselves; What is Dan Dugan doing in Milwaukee?...and what brings him before the Milwaukee City Council?

Today I appear before you at the request of Bobby Webber, President of Milwaukee Local 215, of the International Association of Fire Fighters

The purpose of my visit is the proposal to reduce the staffing on Milwaukee Ladder Trucks from five fire fighters to four fire fighters...a proposal I strongly urge this council to reject.

Why do I feel so passionately about staffing on fire apparatus...and the Staffing of Ladder Trucks in particular?...this was an experiment that was tried in the Nation's Capitol ...an experiment that was halted...but only after Firefighters Anthony Phillips and Louis Matthews were literally incinerated as they attempted to extinguish a fire that appeared to be routine...proving there is no such thing as a routine fire. And at the same incident...Fire Fighter Joe Morgan received third degree burns to 62 percent of his body surface and was given a 5 percent chance for survival .

Firefighter Morgan was admitted to the Intensive Care Unit of the Burn Center at The Washington Hospital Center where he began the first of 15 surgical procedures...most of which took place every two to three days.

Medical personnel at The Burn Center described his recovery as nothing but a miracle as he was discharged...85 days later...and walked out of the hospital under his own power.

For the next few minutes hold onto the names of Firefighters Matthews, Phillips and Morgan as I attempt to explain how the reduction of one fire fighter can have a devastating impact on fire ground operations.

I would like to draw an analogy between the five members of the Milwaukee Bucks and the 5 fire fighters assigned to Milwaukee Fire Department's Ladder Company 1.

The one thing both have in common is their individual responsibilities. The basketball team has 2 forwards...2 guards...and the center, a complement of five players who in order to win must play together as a unit...or their mission ...which is obviously to win...will not be attained.

Likewise...Ladder Company 1 has a driver...a tiller man (or a bucket operator)...A forcible entry fire fighter...hook/axe fire fighter...and an Officer in Charge.

Unlike their counterparts on the basketball team...to the fire fighters this is not a game... but a matter of life or death. Ladder Company Operations at all structural fires, regardless of the location or type of building are divided into three responsibilities...Rescue...Control of Fire...and the Preservation of Property.

Fire Fighters assigned to Ladder Companies must be trained and equipped to carry out the following operations on the Fire Ground:

- Provide forcible entry and access for engine companies fire fighters
- Locate and remove endangered occupants via ground ladders and aerial ladder or bucket
- Ventilation – both horizontal & vertical
- Shutting off of utilities, gas, electric water

- Check for extension of fire
- Provide for emergency lighting
- Provide Emergency Medical Care
- Overhauling Operations – making sure the fire is extinguished
- Salvage Operations- the covering of property with heavy, water resistant covers
- Operate elevated heavy duty hose streams from aerial ladder

Individual duties of fire fighters assigned to a ladder company:

- Driver – Positions ladder truck in close proximity to fire building
- Driver and tillerman begin to ladder building with either ground ladders or 100foot aerial. The intended use for laddering is always rescue, gaining access for hose lines
- Driver/tillerman go to roof to open up, allowing the escape of superheated gases to the outside. This is a very dangerous position and is always performed by two fire fighters working together.
- Assists interior team with salvage and overhaul operations
- If heavy duty devices are need, prepare for ladder pipe or monitor nozzle operations

Forcible Entry Fire Fighter

- Uses tools to force entry for engine company
- Performs any immediate rescue or evacuation
- Locate fire-begin primary search of fire floor. If only one ladder truck is on the scene, conduct primary search of floor above fire.

- Performs interior ventilation as these areas are searched
- Secondary search is performed after primary search and ventilation has been completed
- The fire fighter assigned to forcible entry always wears his/her SCBA and carries a forcible entry tool, plus a small sledge hammer.

Hook & Axe Firefighter:

- Assist with ground ladders
- Assist with raising of ground ladders and removal of occupants
- Performs emergency medical procedures
- Assists in ventilation
- Brings emergency lights into fire building

Tiller (rear) Operator or Bucket Operator:

- Assists driver as part of the exterior team
- Responsible for shutting off gas, electric and water
- Places generator in service and advances lights into building
- Performs roof ventilation with driver
- Assists with salvage and overhaul operations
- Assists in heavy-duty operations, sets up ladder pipe, controls guidelines, assists in placing monitor nozzle

Officer In Charge of Ladder Truck:

- Upon arrival performs size up. Evaluates fire ground conditions, including all sides of building and relays information to fire ground commander
- First priority is rescue
- Assist in raising of ground ladders
- Enter fire building
- Manages salvage & overhaul operations
- Makes sure fire is out to alleviate the possibility of rekindle

On October 31, 1993...despite the warnings by fire officials that this is a

dangerous policy, all D.C Ladder Trucks were reduced from five fire fighters to four fire fighters.

On October 24, 1997, Sgt. John Carter perished after falling through a floor at 4th & Kennedy Street, NW. The Reconstruction Committee investigating his death recommended “that Ladder Company Staffing Must Be Restored to Five Members” (page 33 of report). The recommendation went unheeded.

On May 30, 1999, Firefighters Anthony Phillips and Louis Matthews perished while fighting a fire at 3146 Cherry Road. At the same incident Firefighter Joe Morgan sustained burns to 62 percent of his body and for the next 30 days his life hung in the balance between life and death. As he slowly began to recover he would undergo over 24 operations and numerous skin grafts and physical therapy. His medical bills were in the millions. His pain and suffering...immeasurable...he would be retired on disability and the department being responsible for all future medical and surgical expenses.

Two fire fighter deaths...one fire fighter critically injured...another Official Reconstruction Committee Report...and another recommendation on Ladder Company Staffing.

It reads in part, “Current staffing of the department’s truck companies is inadequate. Working fires require truck company members to perform more work

tasks then can be accomplished by four fire fighters in a timely manner. At this incident, improper and insufficient and ventilation by truck companies was a critical factor contributing to the deaths and injuries.”

Let me repeat what often mayors and city managers can't comprehend, working fires require truck company members to perform more work tasks than can be accomplished by four fire fighters in a timely manner.

In closing, let us go back to the beginning of my testimony when I mentioned the 5 player Milwaukee Bucks basketball team. The owner would not think of putting a team on the floor with only 4 players. Why? Because that one player reduces the ability of the team to function by 20 percent.

The same premise holds true for your fire fighters. Reduce the ladder company staffing on your ladder trucks by one fire fighter and you have reduced your efficiency on the fire ground by 20 percent.

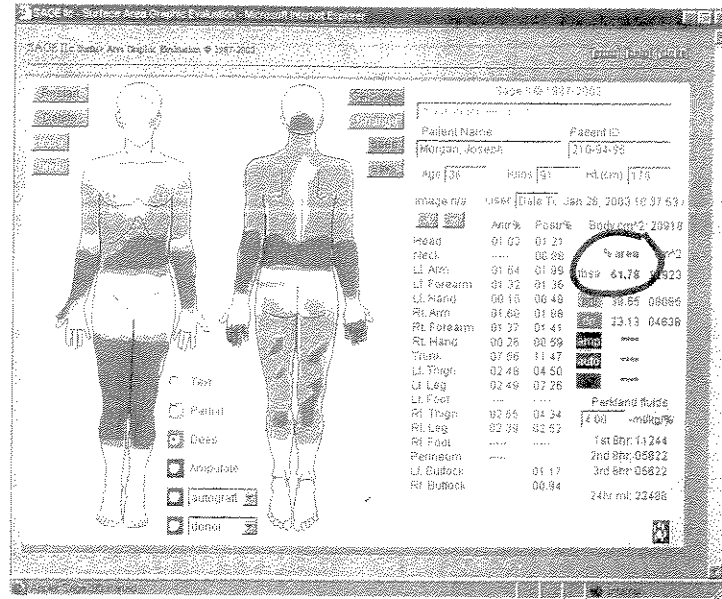
I am pleased to report that on December 1, 2001 the experiment to run the DC Fire and EMS Department Ladder Trucks on four fire fighters was ended and today...as I appear before you...all 17 Ladder Trucks are staffed with five fire fighters.

Unfortunately for Sgt. Carter, and Firefighters Phillips, Matthews and Morgan the experiment did not end in time.

I urge you as sincerely and as passionately as I can, to reject this proposal to reduce the staffing on Fire Department Ladder Trucks.

This concludes my statement.

A *Shapefile* (a *Software Graphic Evaluation* by 1987-2002) Burn Diagram is used to calculate the percentage of the body surface that is burned. This value is used to estimate the acute resuscitation fluid requirements, the daily maintenance fluid losses, and the daily nutritional needs. (The Burn Center at Washington Hospital Center, Washington, D.C.)



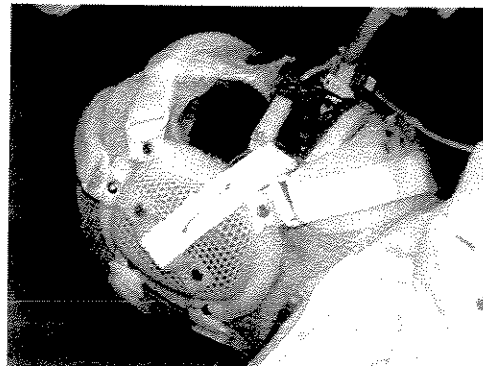
treatment within a few days. Unfortunately, Joe's partner and another firefighter were at the top of the stairwell in direct line with the flames and suffered extensive burns that were quickly fatal.

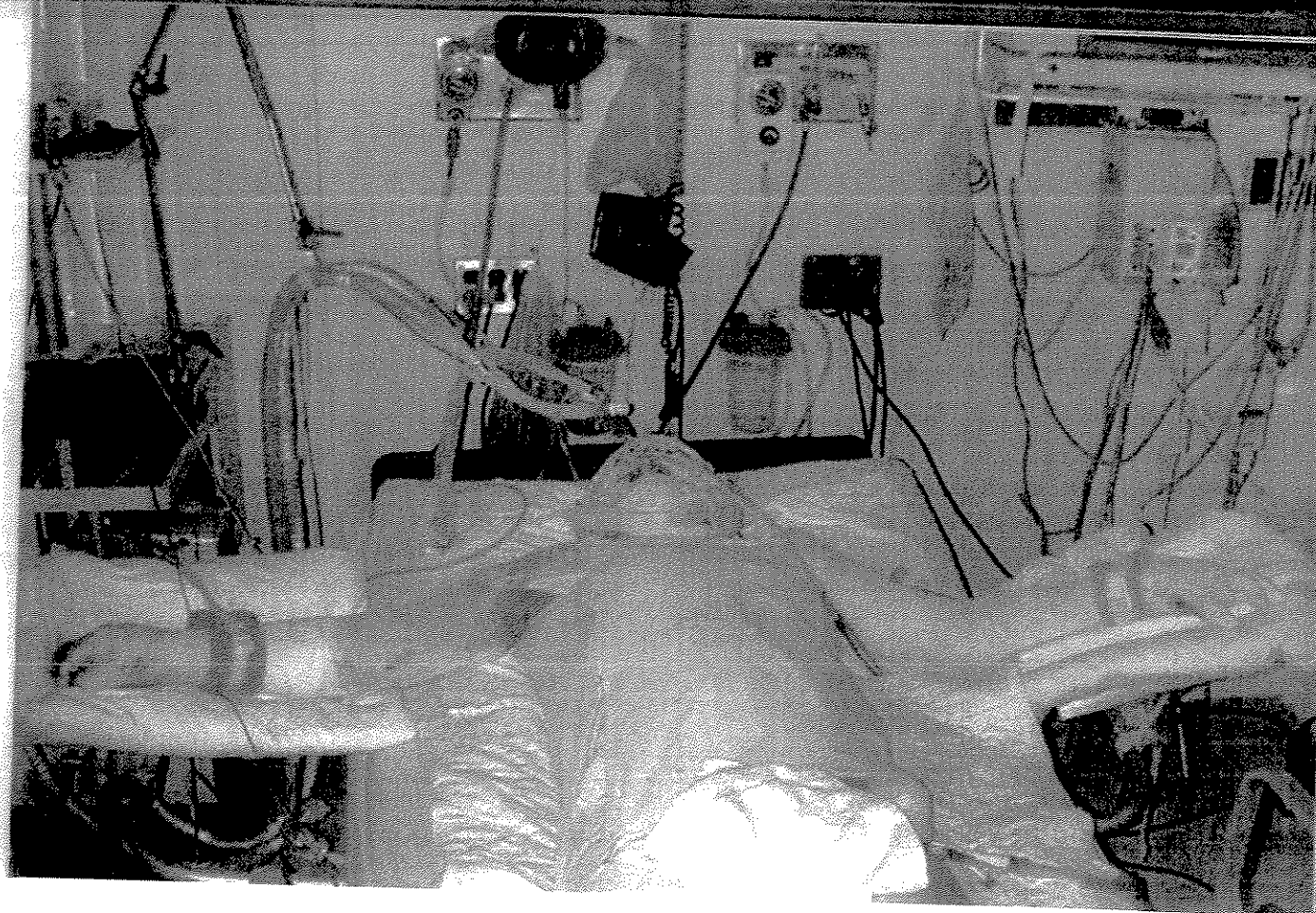
Although Joe had not been in direct contact with flames, he had been exposed to intense heat estimated to be in excess of 1,500 degrees Fahrenheit. Firefighters hosed him down and then, with the paramedics, removed his gear, undressed him, and put him in an ambulance. One paramedic attended to Joe while the other stayed at the scene. A policeman drove the ambulance to the hospital.

Joe could see that his fingers were burned and was very worried that they would stick together. He kept spreading them apart and convinced the paramedic to wrap them individually. He tried to calm down. It was a seven-minute ride to The Burn Center at Washington Hospital Center. There he was assessed as having suffered third-degree burns to almost 62 percent of his body surface. The only areas that were not burned were his feet, parts of his torso, thighs and lower legs, face, and the top of his head.

Bottom, left: An incision is made through the inelastic burned skin to relieve the tourniquet effect and allow the healthy, deeper, injured tissues to swell without losing blood flow. (The Burn Center at Washington Hospital Center, Washington, D.C.)

Bottom, right: A plastic tube is inserted through the vocal cords into the trachea to maintain an open airway during the early hours or days when all of the body's tissues, especially injured structures, develop swelling as a normal response to the injury. (The Burn Center at Washington Hospital Center, Washington, D.C.)





Above: The burned areas are covered with gauze dressings that contain an antibacterial chemical composed of sulfur drugs and silver molecules. The dressings control the growth of bacteria in the burned skin and thereby control life-threatening infection. (The Burn Center at Washington Hospital Center, Washington, D.C.)

His fluid replacement requirements to prevent shock were calculated to be 22+ liters (more than five gallons) to be given intravenously during the next twenty-four hours. The rapid infusion of intravenous fluids, combined with the burn injury, caused swelling in his extremities and torso which created a tourniquet effect. That pressure essentially cut off blood circulation to these areas. Escharotomies—incisions through the burned skin—were performed to relieve the pressure and restore circulation. A plastic (endotracheal) tube was inserted into his airway because of concern that his airway would swell closed.

Transfer from the trauma admitting unit to the burn intensive care unit occurred within one hour. Once in the burn unit, Joe was immediately weighed and then bathed to remove the blistered, loose skin and adherent burned clothing. Intact burned skin was cleansed with an iodine solution. Twenty minutes later, Joe was in his intensive care unit room surrounded by nurses applying silver sulfadiazine dressings (designed to control infection) to his face, arms, hands, legs, chest, and back. Based upon his age and burn extent, his estimated chance of survival was approximately 5 percent.

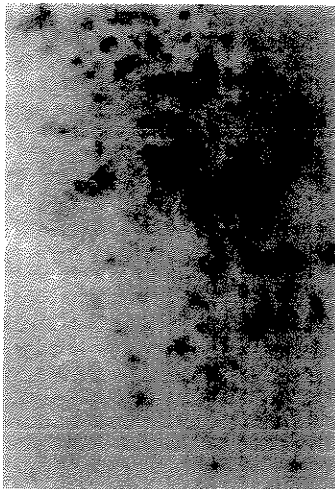
Joe's burn wounds were cleansed and bandaged twice a day, every day for two months. For the first few weeks, the extensive dressing changes consumed two hours each. During and between those events, the nurses and rehabilitation therapists coached him to move his extremities frequently to prevent losses of flexibility due to the inevitable scarring. As time passed, the rehabilitation therapy became more intense.



The burned hands are wrapped with individual dressings for each finger to allow the patient to use the hands and reduce the disability from scarring. (The Burn Center at Washington Hospital Center, Washington, D.C.)



The rehabilitation therapy begins in the intensive care unit and continues through out the hospital course and sometimes for months afterwards. (The burn nurse at Washington Hospital Center, Washington, D.C.)



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For the first week, his breathing was assisted by a mechanical ventilator, with air delivered through the plastic tube in his trachea. While that tube was in place, his only method of communication was to nod "Yes" or "No" to questions. Fortunately, his lungs and airway had been protected by his SCBA, and the endotracheal tube was able to be removed by June 5. Feeding was accomplished with another tube passed through his nose into his stomach. This remained in place for the first several weeks to ensure that he received the 4,000–4,500 calories daily (equivalent to eating eight Big Macs) that would be necessary for wound healing. His survival was always in question, but the absence of airway and lung injury gave cause for hope.

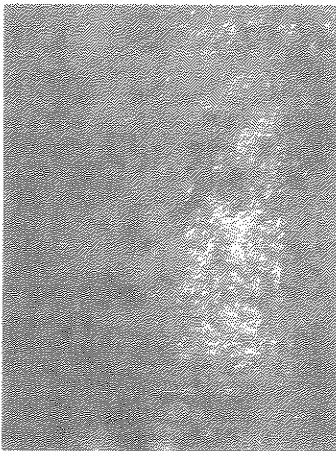
The first of fifteen surgical procedures began on June 1, 1999, and most of those operations occurred every two to three days during the first month. All of the burned skin had to be removed and serially replaced with skin from his unburned areas—a process called excision and skin grafting. Since the amount of unburned skin on his body was much less than what was burned, temporary skin substitutes were used, including human cadaver skin from a skin bank and a synthetic, bio-engineered product made from cow protein and powdered shark cartilage. The former provided coverage of the raw wounds with a living human skin that would eventually reject and require placement with his own skin. The latter served to protect the wound while providing the



body with a biological "scaffold" to grow new dermis for eventual coverage with his own outer layer of skin cells.

In total, the burned areas requiring skin grafts totaled 12.5 square feet, a surface equal to a tabletop measuring two feet long and six feet

Opposite, bottom: The burned skin is dry, leathery, and has lost its outer layer (epidermis), which contains the pigment for skin color. The exposed, damaged second layer—the dermis—is vulnerable to infection with bacteria. It must be surgically removed for healing to occur. (The Burn Center at Washington Hospital Center, Washington, D.C.)

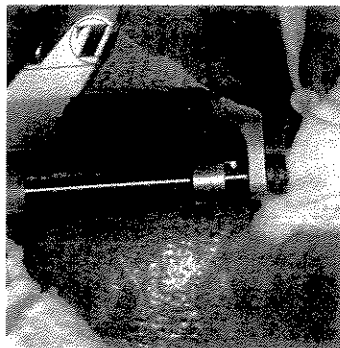
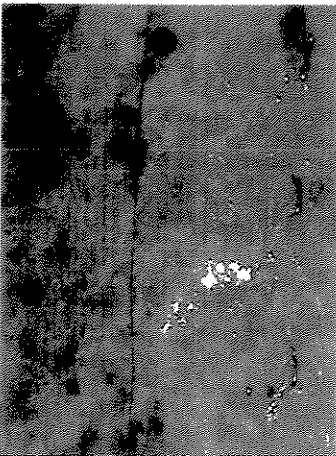


Top, left: In the operating room, with the patient asleep, the burned areas of skin are shaved off in a series of paper-thin layers with a razor-sharp instrument. (The Burn Center at Washington Hospital Center, Washington, D.C.)

Top, right: The second layer of damaged tissue is removed with the razor knife. The damaged tissue shows staining of the tissue layers from red blood cells leaking from small blood vessels. (The Burn Center at Washington Hospital Center, Washington, D.C.)

Center, left: The wound surface after bleeding has stopped shows yellow fat and healthy dermis mixed with an early thin layer of scar tissue. (The Burn Center at Washington Hospital Center, Washington, D.C.)

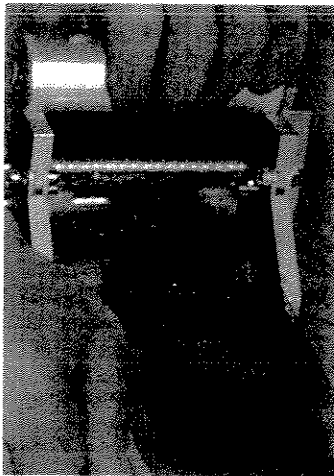
Center, right: The delicate deep tissues have been covered with Integra®—a bio-engineered material made of cow protein and powdered shark cartilage bonded to a sheet of silicon—which protects the wound and serves as a scaffold for healing cells to create a new dermal layer. (The Burn Center at Washington Hospital Center, Washington, D.C.)



Bottom, left: The burn wound after two weeks shows evidence of red blood circulating in newly developed blood vessels which grow into the Integra® scaffold beneath the shiny silicon sheet. (The Burn Center at Washington Hospital Center, Washington, D.C.)

Bottom, right: The Integra® scaffold must now be covered with an outer layer of skin—the epidermis. This is accomplished by removing a thin sheet (0.12" thick) of skin from an unburned area of the body. (The Burn Center at Washington Hospital Center, Washington, D.C.)

This donor is sutured in place in a fraction bar and will heal within two weeks under a pressure dressing that also wraps a sterile sheet to prevent fluid losses, minimize discomfort, and prevent bacterial infection. (The Burn Center at Washington Hospital Center, Washington, D.C.)



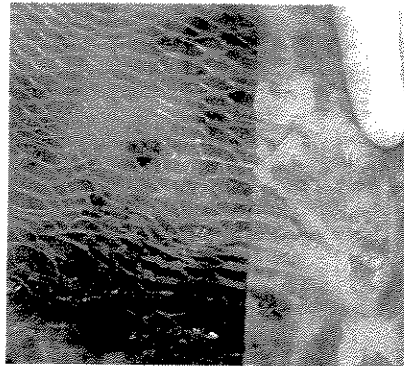
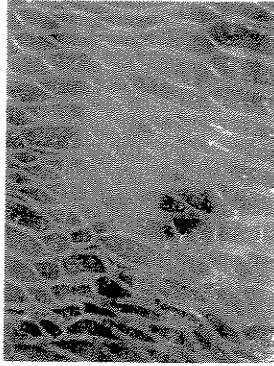
Above: When the burn injury is extensive, and donor areas are scarce, the skin sheet is perforated with an instrument called a mesher to allow expansion of coverage. (The Burn Center at Washington Hospital Center, Washington, D.C.)

The meshed skin graft, in this case, was expanded in a 3:1 ratio to allow seeding of epidermal skin cells over a larger wound. The graft is upside-down on the plastic carrier to allow direct application of the underside to the wound surface. (The Burn Center at Washington Hospital Center, Washington, D.C.)



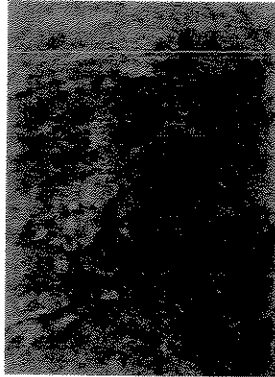
wide. Because virtually all areas were grafted twice—once with temporary skin substitutes and subsequently with Joe's own skin—the total surfaces grafted were double that amount. The last surgery before his discharge from the hospital was August 13.

Joe was discharged from the hospital eighty-five days after the fire. He had lost more than twenty pounds due to loss of tissue and



Top, left: The Integra® silicon layer has been removed, and the skin graft has been placed on the new dermal layer. Within two to three weeks, the skin cells will grow from the edges of the meshed graft and fill in the open, diamond-shaped areas. (The Burn Center at Washington Hospital Center, Washington, D.C.)

Top, right: The skin graft is carefully wrapped with a petrolatum gauze to prevent drying and movement and then is covered with multiple layers of cotton gauze and elastic gauze to prevent shearing until the new blood vessels have grown into the epidermal layer. (The Burn Center at Washington Hospital Center, Washington, D.C.)



Center left: Several months later, the grafted area still shows a slightly irregular surface, but the pigment has filled in and the grafted skin is a durable covering for an area that suffered a full-thickness burn injury. (The Burn Center at Washington Hospital Center, Washington, D.C.)

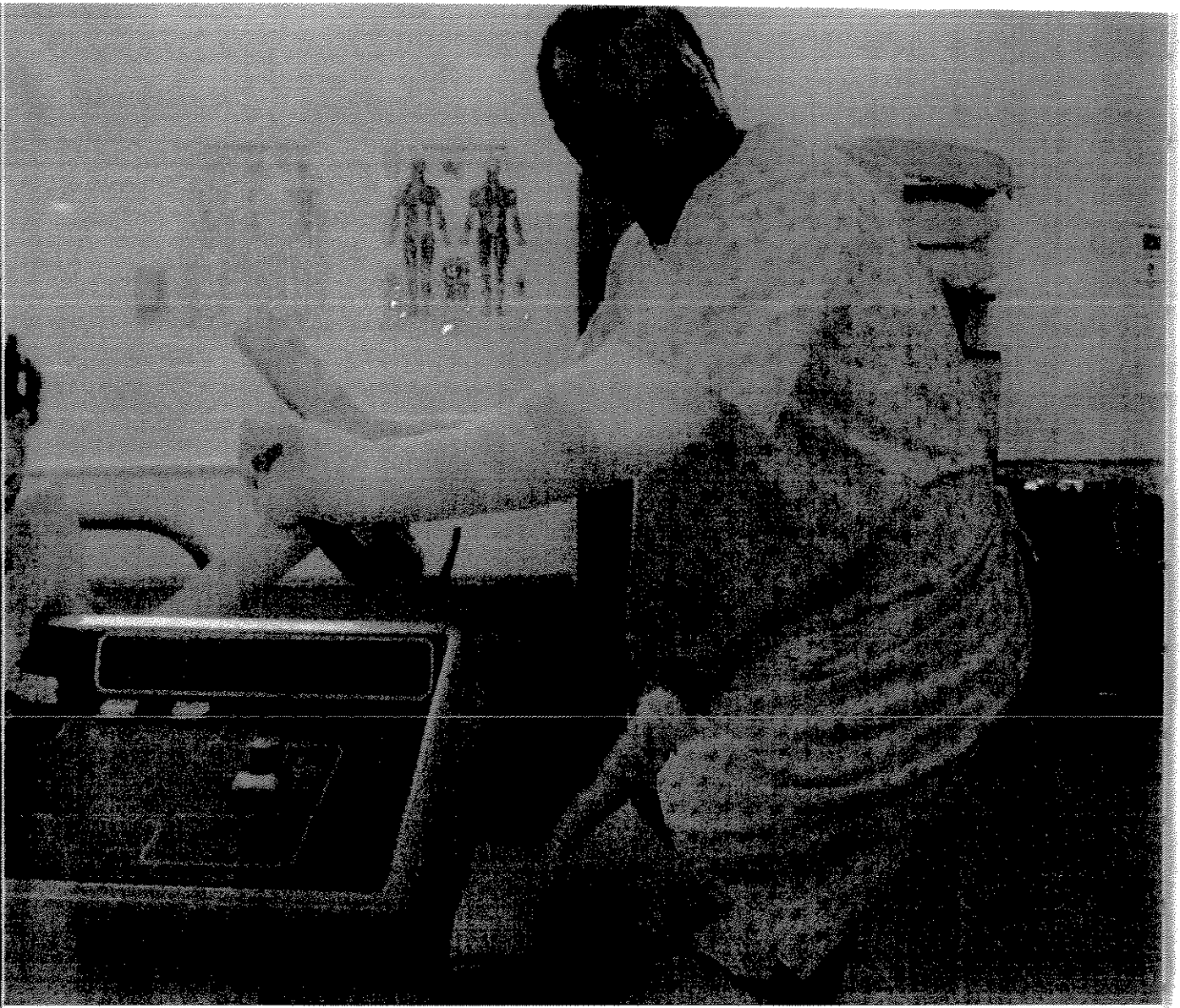
Center, right: In some areas, because of the urgency for rapid wound closure to prevent life-threatening infection, the grafts were applied in one stage without the intermediate use of the Integra®. These areas also have durable coverage, but exhibit a more visible mesh pattern. Reconstructive surgery after recovery from the acute injury remains an option for an improved, smoother appearance. (The Burn Center at Washington Hospital Center, Washington, D.C.)

wasting of muscle mass from the forced inactivity during the critical phase of illness. He faced a long course of rehabilitation therapy and reconstructive surgery.

Below, left: Rehabilitation therapy focused on hand and finger motion as a priority, with early tasks such as stacking cones being difficult at first. (The Burn Center at Washington Hospital Center, Washington, D.C.)

Below: As dexterity improved, exercise was prescribed to regain hand and upper extremity strength. (The Burn Center at Washington Hospital Center, Washington, D.C.)







After several months of rehabilitation, Joe Morgan returned to the job full-time, proudly wearing his uniform and performing his duties in a modified role that recognizes his inability to endure extreme heat, but takes advantage of his ability and experience in teaching safety and prevention of injury. He lost one of his battalion brothers and a firefighter from the other responding unit, but he was alive and able to continue his career as a firefighter.

As Joe's story illustrates, all burned firefighters deserve to be transported as quickly as possible to a dedicated burn facility; being brought

Opposite, top: During the critical period of illness, the body's muscles become weak and endurance is lost. As soon as balance and muscle control returned, the treadmill and exercise bike were added to the therapy program. (The Burn Center at Washington Hospital Center, Washington, D.C.)

Opposite, bottom, left: A part of rehabilitation therapy is scar control. All areas with healing wounds were covered with elastic, custom-fitted compression garments to flatten the scars as they matured. The gloves and body suits were required for twelve months, twenty-four hours daily, and needed replacements every six to eight weeks to maintain proper pressure. (The Burn Center at Washington Hospital Center, Washington, D.C.)

Opposite, bottom, right: The desired result of the surgery and the therapy is a strong, fully-functional person. Scar control was successful. (The Burn Center at Washington Hospital Center, Washington, D.C.)

Top, left: This hand regained full motion and strength well before the gloves were discontinued. (The Burn Center at Washington Hospital Center, Washington, D.C.)

Top, right: Regular visits to Burn Clinic and Burn Rehab Therapy are routine for the first twelve months after discharge from the hospital. Measurements of strength and motion were made, and the compression garments were checked for wear and effectiveness. (The Burn Center at Washington Hospital Center, Washington, D.C.)

Left: Burn patients develop a strong bond with the Burn Center staff, as evident by a typical expression of affection between Joe and the head nurse of the Burn Rehab Unit during one of his Burn Clinic visits. (The Burn Center at Washington Hospital Center, Washington, D.C.)





When the patient dons the uniform and returns, the burn team is rewarded for its effort. Here, Joe is receiving fluid instructions in skin care and activities from the Burn Nurse Practitioner. (The Burn Center at Washington Hospital Center, Washington, D.C.)

to such a unit is the only guarantee that the firefighter will receive the highest level of medical care available to burn victims. Fire departments who are not within range of a burn unit should make contingency plans to get their firefighters transferred from an emergency unit to a burn center with all due speed. While Joe Morgan was wearing all of his gear and still received life-threatening burns, there is increased risk of injury when firefighters rush into emergencies without taking the time to don their total gear package. According to the National Fire Fighter Burn Study completed in 2002, the absence of any portion of the personal protective gear is a major contributing factor to firefighter burns. In addition, on the opposite end of the spectrum, a firefighter fully encapsulated in gear, and exposed to the danger of rapidly moving fire conditions, does not have the ability to feel the change in environment (heat level increase) until it's too late. Both of these situations are major contributing factors to firefighter thermal injuries.

Joe Morgan's recovery is but one example of courage and heroism that occurs every year in the fire service. Fortunately for the public, there are valiant young men and women who choose to place themselves in harm's way to save others' lives and property. While some injury and loss of life seems inevitable, considering what they do, the progress in burn care and rehabilitation offers hope for survival and recovery of function. Joe's return to duty is a memorial to fallen firefighters, and each day that he contributes is an inspiration to the burn team and his coworkers.

This story had a happy ending. A fully recovered firefighter and his daughter visit with his co-workers. (The Burn Center at Washington Hospital Center, Washington, D.C.)

