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Bill Doyle waits for the day he can go to a cemetery plot and visit his son Joey.

to consecrate before God, to bury. (Related audio: New

Sally Regenhard waits for the day she can erect a gravestone that will proclaim to the ages that her son Christian lived and died. Diane Horning waits for the day she will receive another part of her son Matthew. She already received three.

But Dee Ragusa will wait no more.

technology for DNA identification)

Her son, Michael Ragusa, is the only New York firefighter of the 343 killed that day who has not had a funeral or memorial service. His mother has said for nearly two years that there could be no funeral without something to bury. Now her wait is over. On Monday, her son will have his funeral, thanks to a serendipitous discovery that there is still a part of him left to bury.

It is startling to realize that two years after the attacks, victims' remains are still being identified for the first time. Relatives are notified by police, arrive at the city medical examiner's office and carry home the remains, often so small they fit in a test tube.

One week before the second anniversary of the attack, no trace has yet been found of 45% of the nearly 2,800 people who died in the twin towers. That's 1,268 people. Forty-two people are still officially "missing" because no one has applied for a death certificate for them, and their remains have not been found.

For those lost at the Trade Center, "found" really means "identified."

When the towers collapsed, the victims were crushed by 3 billion tons of debris that acted as "a huge mortar and pestle," in the words of Robert Shaler, director of forensic biology at the city medical examiner's office. Searchers recovered 19,893 separate body parts, including a single tooth. One man was found in about 200 pieces.

Shaler used to watch the searchers at Ground Zero. One day, he recalls, "they

brought in a little piece of rib bone. And I thought, 'How did they find that?' Because it was the same gray color as everything else. It looked like a twig."

Fewer than 300 bodies were intact. Only 12 could be identified purely by sight. The key to identifying most of the dead lay in the DNA, the body's genetic code. Tiny bits of remains were frozen, ground up and dissolved. DNA was then extracted from the nucleus of individual cells and compared to DNA taken from victims' toothbrushes, clothing and other personal items. (**Related audio**: New DNA ID techniques)

The medical examiner's office has been unable to identify 62% of the body parts. They were so scorched, soaked or decomposed that no usable DNA could be extracted.

And each month, DNA analysis adds fewer names to the list of confirmed dead. In April 2002, when 126 people were identified, Shaler said he hoped to identify remains for 2,000 victims, or 71% of those lost. Then the numbers started to drop: 93 were identified in August last year, 14 in January, nine in July. Last month, just four families got word.

Advances using DNA

Shaler has developed new techniques for DNA identification: looking at a type of DNA passed only from the mother to a child; using fewer DNA base pairs, which may provide more usable samples from remains; plotting where body fragments were found on the site to determine whether remains from co-workers might be clustered together. All to narrow down the 12,419 body fragments left after identifying 7,474 parts.

But he expects no more than another 200 victims will be identified before investigators exhaust these techniques sometime next year. The dead not identified by then will have to wait for as-yet-undiscovered ways of matching DNA. The remains will be buried in a memorial to be built at Ground Zero. The DNA samples will stay at the medical examiner's office forever. The search will never end.

Even the final death toll at the Trade Center is unsettled, due mostly to duplication of names, fraud and honest but erroneous missing person reports. On the first anniversary, the city counted 2,801 victims. A year later, the city now lists 2,792 as lost. That figure still varies from databases assembled by The Associated Press (2,775) and USA TODAY (2,784).

The exact number killed may never be certain, city officials acknowledge. Evidence could surface of a previously unknown victim — a homeless person, perhaps, or an illegal immigrant.

Some DNA samples extracted from bones and tissue do not match any genetic profile submitted by victims' relatives. In the medical examiner's freezer may lie the remains of a victim who was never reported missing.

Dee Ragusa did not think like a fire department mother because her son was the first in his family to become a firefighter. When she turned on the television that morning and saw the World Trade Center in flames, she thought, "Thank God none of my children works there."

In fact, Michael Ragusa, 29, a plumber by trade who joined the department a little more than a year earlier, had raced to the Trade Center from his Brooklyn firehouse. His father, Vincent Ragusa, later worked it out, minute by minute. Michael would have had enough time to reach the 30th or 40th floor of one of the towers. That meant about 70 floors came down on him.

Vincent was pessimistic about his son's chances of survival. But he and his wife were sure their son's remains would be found. Michael had died in the heart of the world's greatest city in the golden age of DNA science. He figured: "How can you not have a body?"

But by the first anniversary of the attacks, all that had been found of Michael Ragusa and the four firefighters who raced toward the south tower with him was the brass badge of the lieutenant who led them.

"It's hard to fathom: no trace of so many people," his mother says. "It can't happen that way. ... People don't just disappear."

They do. They did on the Titanic, at Hiroshima, in landslides, tidal waves and battles since the beginning of time. And it is likely they did at the Trade Center, the medical examiner says. What never changes, no matter where you go, is the basic human

need for a body to grieve over, to bless, to bury.

For the first time, Dee Ragusa understood.

"If he's not laid to rest, it's like he never was. I want something that marks that he was alive. It makes him real. It says he was."

So important, so necessary

The Ragusas believed that the people searching for their son's remains also understood — especially Shiya Ribowsky, the medical examiner's deputy director of investigations. They once asked Ribowsky how he could deal with his grisly task.

"I'm used to seeing body parts spread around on a table," he told them. "What I can't handle is not being able to identify them."

Ribowsky also had been looking for someone in the World Trade Center: one of his closest friends, a man he sang with as cantor at his synagogue. The man's office was on the 94th floor of the north tower — directly in the path of the hijacked American Airlines jet.

We'll never find him, Ribowsky told his friend's widow. But six months after the attack, a body fragment that had been found on the roof of a building a block and a half from Ground Zero was identified as Ribowsky's friend.

As the friend's coffin was lowered into the ground, Ribowsky knew how little of his earthly form was in it. Yet, for the first time since 9/11, he cried. "This is so important," he thought. "This is necessary."

Meanwhile, Dee Ragusa began to hear whispers: Why didn't she have any service for Michael? How long was she going to wait? Every other firefighter had a service or a memorial, even without remains. Catholic churches had even bent their rules to allow families to display a photograph at a memorial Mass, in lieu of a coffin. Catholic cemeteries allowed families to bury objects instead of bodies.

"I don't know how anyone could hurry," Dee Ragusa says. "It takes a long time to adjust to the fact that your son is dead. I never saw him die. I never saw any remains."

But she'd reached a bitter conclusion about her son: "He was incinerated."

In November 2002, the Ragusas went to hear Shaler, from the medical examiner's office, speak to victims' families in a church hall on Staten Island. They already trusted him. Once, Dee Ragusa expressed fears that after DNA testing had run its course, the remaining human pieces of bone and tissue might eventually be thrown away. He had told her, "They'll throw me away before they throw them away."

That night on Staten Island, Shaler mentioned in passing that some firefighters had given blood to become potential bone marrow donors. Families could always retrieve the blood to provide a DNA sample.

Dee and Vincent Ragusa stared at each other. Michael had volunteered to be a marrow donor

"On the way home, we were laughing and crying. We were hysterical. We were happy, if you can call it happy," she recalls.

"We had something. Now we had something."

Months passed as the Ragusas waited. On July 6, their younger son Kenneth — who like Michael had lived at home — was married in Jamaica. Dee Ragusa hadn't wanted Michael's funeral to shadow his brother's wedding.

On the flight home, she turned to her husband. "It's time," she said. "We have to be honest with ourselves. They're not going to find him. We've waited two years. It's time."

After Shaler's revelation in November, the Ragusas had asked for their son's stored blood sample. On Michael's birthday, July 30, they drove to a blood bank to collect it.

As they drove home, they passed the hospital where Dee Ragusa had given birth to Mikey 31 years earlier. It hit them: In a way, they were taking their son home again.

'Big enough to bury'

The Ragusas live in the Bergen Beach neighborhood of Brooklyn, an isolated

waterfront enclave that did not have paved streets until the 1960s. This is where Mikey used to play in the empty lots, get dirty, get into trouble. Now their street is named after him.

In the Ragusas' living room, a votive candle illuminates a gallery of his photos. His mother shows a visitor the silver-plated box lined with royal blue felt that will contain his blood at Monday's funeral. The words "New York firefighter" are inscribed on top, and below them, "Michael Paul Ragusa."

"It'll be a coffin within a coffin," she says.

She knows that funerals in many ways are for the living. But she says she's not doing it for herself.

"I could have lived the rest of my life without burying one of my children. I'm doing it for Michael. He deserves his marker."

If Michael's remains are identified after the funeral, his parents don't want to know. "You have to know when enough is enough," Dee Ragusa says.

A visitor asks Vincent Ragusa about the blood. "Would you like to see it?" he replies.

He walks to the kitchen and pulls open the freezer door, which is plastered with photos of Michael. He removes a white cardboard box, the kind that comes from a bakery with a pound of assorted cookies.

He sets the box on the table and lifts the top. Inside is a white paper honeycomb, each narrow cell big enough for a vial. Sitting in the grid's center space, like a poppy in a field of white lilies, is a single vial filled with two teaspoons of blood.

Vincent Ragusa lifts the vial, which is about two inches long, and holds it between his thumb and forefinger.

"That's all that's left of him. Unbelievable," the father murmurs.

"It's not that big," the mother says, "but it's big enough to bury."

Contributing: Paul Overberg, Bruce Rosenstein in McLean, Va.

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