

# Every Breath You Take

**When Michael Ferialdi's lungs were too weak to function, ECMO came to the rescue.**

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Photographed by LARA ROSSIGNOL

**W**hen Michael Ferialdi started feeling poorly one Friday in June of last year, he didn't worry.

The strapping 29-year-old spends his weekdays installing electrical equipment in commercial buildings and his weekends hiking and fishing. A runny nose and some coughing hardly seemed like a threat.

But within two days, the congestion had morphed into a 103° temperature, and Ferialdi was vomiting blood. His girlfriend insisted they go to the emergency room, and he agreed. They rushed to Providence Saint Joseph Medical Center, where doctors told his family he had only a 10 percent chance of survival.

From there, he says, "It's a blur. I woke up five weeks later."

Ferialdi's mother, Gina Dunne, who works at Providence Saint Joseph as a lab technician, received a call at home that her son was in the ER and was having trouble breathing. With his family gathering, Ferialdi was admitted to the ICU and diagnosed with pneumococcal pneumonia, an infection of the lungs.

His condition continued to worsen. Each day his oxygen level dropped a little more. Without intervention, the lack of oxygen would start damaging Ferialdi's organs. Because his oxygen levels would drop every time he moved, taking him to the operating room for a bronchoscopy, a procedure that allows the doctor to look inside the patient's airway, was out of the question. The procedure had to be performed in the ICU.

"It was really scary," Dunne says. "We didn't know if he was going to make it."

Ferialdi's doctors told his family that there was one option that might help, but it was still risky. Providence Saint Joseph Medical Center just had obtained and trained staff to use an extracorporeal membrane oxygenation (ECMO) machine. A portable heart-lung machine, the device pumps out the patient's blood, gives it oxygen and then returns it to the patient. ("Extracorporeal" means outside the body.)

ECMO has long been available for infants and children with life-threatening respiratory or cardiac failure. In recent years the technology has been used in adult patients with severe respiratory failure. The treatment requires skilled physicians and close monitoring. And it's not without risks. But it's also a valuable option for some patients who might otherwise die.

**“I think our miracle has finally happened.”**

Because the device is small and portable, it could be brought to Ferialdi's bedside. It was the first time the device was used at Providence Saint Joseph. Each day the ECMO machine did the work of Ferialdi's heart and lungs. Each day Dunne prayed for a miracle.

The family's ties with Providence Saint Joseph run deep. Not only has Dunne worked there for more than three decades, she was born there as well. And it's where she delivered Ferialdi and his siblings. Ferialdi's grandmother even volunteers at the hospital's information desk.

"I knew Michael was in good hands," says Dunne.


On the fifth morning after Ferialdi started on the ECMO machine, his doctor greeted Dunne with a smile. "He said, 'I think our miracle has finally happened.'"

Ferialdi had turned the corner. His heart and lungs had regained enough strength to work on their own. He was kept in a medically induced coma so that his body could recover. But the threat to his life was over.

"I was weak and couldn't move when I woke up," Ferialdi recalls. "I had a bunch of tubes in my nose." He spent another few weeks in the hospital and then was well enough to be discharged.

Ferialdi had lots of help with his recovery. He lives with his father and sister, who stayed with him and helped him practice walking in the house and yard. His friends took him to the beach and carried him from the parking lot so he could walk up and down the sand.

He returned to work at the end of December. "I didn't realize how many muscles you need to go up and down ladders," he laughs. His lungs have not fully recovered, but he will continue to regain lung capacity and strength over the coming months.

"An experience like this is a life-changer. You realize anything can happen at any time," he says. "It makes you respect life more—how fragile it can be." 

For more information about ECMO, visit us online at [California.providence.org](http://California.providence.org) or call 1-888-HEALING (432-5464).

