In late 2012, 22-year-old Mollie Moreland was just starting a nursing job at the Cleveland Clinic in Ohio when she made the decision to save someone’s life – not as a nurse, but as an organ donor.

Moreland’s brother-in-law, Chris Wagner, a then-32-year-old former veteran and father of two, had a rare liver disease called primary sclerosing cholangitis, which was slowly causing his liver to fail. Because Wagner’s chances of receiving a
liver from a deceased donor were low, he started looking for a living donor.

“My sister and my two little nephews, I couldn’t imagine their life without Chris,” Moreland told FoxNews.com, of her decision to become Wagner’s donor. “That was the main thing driving me.”

The United Network for Organ Sharing (UNOS) currently lists 121,290 people awaiting organ transplants in the United States, and since most donated organs come from deceased donors, there is a wide gap between potential transplant recipients and available organs. However, the number of living donor transplants in the United States has been steadily increasing over the past 20 years.

According to Dr. John Fung, the former head of Cleveland Clinic’s transplant center, increasing the number of living donors, like Moreland, may be the best way to chip away at the shortage of donor organs in the United States.

The screening process
Kidney and liver donations are the most common procedures among living donors, and they offer better outcomes for recipients than donations from deceased donors, according to Fung. While lung and pancreas transplants have occurred in the United States, they carry greater risks and are very rare procedures.

To give an organ, living donors must undergo an intense physical and mental screening process, according to Fung.

“When you look at general health, they should be very healthy or have minimal medical complications,” Fung told FoxNews.com. “The evaluation process when the patient comes in is number one, meet those medical criteria, then go through psychological screening to make sure you’re doing it for the right reasons.”

In addition to being healthy, donors must also be relatively young. Fung noted that most transplant programs won’t accept kidneys from people over the age of 60, while the cutoff age for liver donors is typically 55.

Moreland went through about three days of physical and mental screening before being approved as a liver donor for Wagner.

“They ask you straight up front, ‘Are you being coerced in any way? Are you being paid? Getting any gifts?’” Moreland recalled. “Obviously, that was an adamant, ‘No,’ for me. My family was trying to talk me out of it [because of the risks], even Chris, and it was going to save his life.”

The surgery
Though the vast majority of living organ donations are successful, Moreland said she’ll never forget when doctors informed her that her risk of dying during the procedure was one in 200. For living donor kidney transplants, the risk of death is one in 1,000 to one in 2,000.

And though the short-term risks for organ donation surgeries are similar to risks seen in any major operation, living donors also face additional risks specific to the nature of their operation.

“There are organ-specific risk factors, not so much for a kidney, because you have two kidneys, and you’re assured the other kidney is okay,” Fung said. “For livers though, there is a slight risk for the donor in the short-term that there could be complications that occur – that the remaining liver doesn’t work. A few of those patients have gone on to require liver transplants themselves in early post-op period.”
Long-term complications for donors are also a concern – though most studies have shown that donors go on to lead healthy, normal lives, according to Fung.

“Long-term, you’re putting added stress on the remnant liver or kidney,” Fung said. “People have now started to look at 20, 30 or 40-year outcomes, and there’s probably a slightly higher risk that you go into failure of that organ although it’s not that much higher than the general population.”

Luckily, Moreland and Wagner’s surgeries, which took place at Cleveland Clinic on July 8, 2013, went smoothly – and happened not a moment too soon.

“His liver had about 5 percent function left, and that is very minimal,” Moreland said. “He would have gone into complete failure and needed a liver in 24 hours any day.”

**The recovery process**

Both Moreland and Wagner bounced back quickly after surgery. Moreland recalls seeing Wagner’s jaundice disappearing – and though her recovery was painful, Moreland said she managed to regain her health relatively quickly after the procedure.

“To me, the biggest thing I remember is my stamina and even [my ability] to walk was completely depleted,” Moreland said. “…We both have pretty hefty scars now and it took about two-and-a-half months until I felt like I could go back to my job as a nurse and lift people.”

While Wagner will be on anti-rejection medications for the rest of his life, Moreland’s life has returned to normal. Though she wasn’t able to drink for six months after the procedure, she no longer has to take pain medication or deal with any lifestyle restrictions.

According to Fung, living donors’ remaining organs tend to bounce back quickly after surgery.

“Let’s say you take out half of [the liver], it will regenerate into 80 to 90 percent [of its original size] by 4 to 6 weeks after surgery,” Fung said. “When you take a kidney out, the kidney you leave in will also grow; there will be some increase in the remnant kidney probably in the order of a 20 to 25 percent increase in size.”

Moreland and Wagner are now both in good health – and recently started an Ohio chapter of the National Living Organ Donors Foundation, Inc., which seeks to help financially support living donors through the recovery process. Moreland said she found the entire process so rewarding, she’d donate to a stranger if she had the opportunity.

“I look back and think about it and even if it wasn’t Chris and it wasn’t my sister risking losing the father [of her children]and her losing the love of her life…and I had the chance to save anybody’s life and I said no to that, I couldn’t live with myself,” Moreland said. “To me, that’s a given. If I was a match, to save anybody’s life, why wouldn’t I do it?”

For more information on the National Living Organ Donors Foundation, e-mail info@nlodfohio.com.