

# Choices

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ENGLEWOOD  
HOSPITAL AND MEDICAL CENTER

The Institute for  
Patient Blood Management &  
Bloodless Medicine and Surgery

## Straightening Logan's Spine— *Without a Transfusion*

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PREPPING PATIENTS FOR BLOODLESS SURGERY

BLOODLESS GASTROENTEROLOGY CARE



# Building a Pain-free FOUNDATION



Mark Hari

After successful knee surgery at The Institute for Patient Blood Management and Bloodless Medicine and Surgery at Englewood Hospital and Medical Center, Mark Hari knew exactly where to go when pain began troubling his other knee.

Mark, a 56-year-old director of technical services in the healthcare industry, enjoys working on home construction and renovation projects in his spare time. Three years ago, however, two of the pillars of orthopedic health—the knees—threatened to crumble beneath him.

“My knees would get sore after prolonged walking or standing,” Mark says. “In 2013, I decided to get someone to check out my left knee because the pain was getting more frequent. I began favoring the knee, which caused my back to hurt. As one of Jehovah’s Witnesses, the use of blood isn’t an option for me. I’d heard great things about The Bloodless Institute at Englewood Hospital and knew its team would honor my wishes for bloodless medical care.”

## Blueprint for Success

In August 2013, John Owens, MD, an orthopedic surgeon at Englewood Hospital’s Bloodless Institute, diagnosed Mark’s left-knee problem as a torn meniscus and recommended arthroscopic surgery. During this minimally invasive procedure, the surgeon makes two small incisions for the camera and surgical instruments, repairs the damaged cartilage, and sews the ends of the meniscus back together. Mark had the same-day surgery in October 2013.

“During the procedure, we used a tourniquet, as well as the minimally invasive techniques of the surgery itself, to control blood loss,” Dr. Owens says. “We continued to closely monitor Mark for bleeding after the procedure.”

After a few weeks of physical therapy, Mark’s left knee felt great. During the ensuing months, however, he couldn’t say the same about the right knee. Another visit to Dr. Owens, in August 2014, revealed a second torn meniscus. Dr. Owens performed same-day arthroscopic repair again, and then Mark followed the same physical therapy regimen.

## Reason to Celebrate

As Mark approaches the two-year anniversary of his second surgery, he’s enjoying the sweetness of life unburdened by knee soreness and discomfort.

“I can walk, stand, and sit for long periods without my knees bothering me, which makes my quality of life better,” he says. “The pain is gone.”

*To learn more about The Institute, visit [www.bloodlessmed.org](http://www.bloodlessmed.org). Call 1-888-766-2566 for a referral to a blood management physician.*



John Owens, MD

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**BLOODLESS MEDICINE HAS HELPED DRIVE THE DEVELOPMENT OF MINIMALLY INVASIVE SURGERY, WHICH IS AN IMPORTANT COMPONENT OF ORTHOPEDIC SURGERY. USING BLOODLESS TECHNIQUES IMPROVES THE CARE OF ALL PATIENTS, NOT JUST THOSE FOR WHOM THE USE OF BLOOD ISN'T AN OPTION.**

— John Owens, MD, orthopedic surgeon at Englewood Hospital’s Institute for Patient Blood Management and Bloodless Medicine and Surgery

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# Doing What Others Couldn't

For Angela Mallory of Halifax, North Carolina, a routine screening turned into an almost 500-mile drive to get the care she needed.



Marc A. Fiorillo, MD, and  
Fred Wolodiger, MD

"I was supposed to have a screening colonoscopy, but they told me there was a blockage that kept them from finishing it," Angela says. "A scan a few days later found a second obstruction. Since all of my immediate family has had cancer, the doctors told me it was very likely I had colon cancer."

Angela was referred to a surgeon close to her home. As one of Jehovah's Witnesses, Angela cannot receive a blood transfusion—a choice her surgeon was uncomfortable with.

"He asked me if it came down to getting a blood transfusion or dying, would I want to die," Angela says. "I told him I didn't want to die, and I didn't want blood either. My husband, Kevin, and I decided I needed to go

to The Institute for Patient Blood Management and Bloodless Medicine and Surgery at Englewood Hospital and Medical Center."

## Better Care, Bloodless Care

In October 2015, Angela met with Fred Wolodiger, MD, general and vascular surgeon, and Marc A. Fiorillo, MD, gastroenterologist, both with Englewood Hospital's Bloodless Institute.

"We were able to complete the colonoscopy and look at the entire colon using a smaller, endoscopic camera typically used for upper endoscopies," Dr. Fiorillo says. "Although we initially suspected cancer, the colonoscopy showed that both obstructions were probably benign."

"The areas to be removed were tattooed by Dr. Fiorillo during the colonoscopy, which was a huge help," Dr. Wolodiger says. "We used a traditional, open technique to remove a portion of the large intestine, stomach, and small intestine, as well as the entire appendix."

Further testing showed that Angela did not have cancer.

"Because she previously had a kidney removed, Angela had scar tissue that was progressive and caused the blockages," Dr. Fiorillo says. "To be safe, we ordered genetic testing, due to her family history, but it was negative for any genetic cancer issues as well."

Today, Angela is back home in North Carolina with Kevin and has no lasting effects from the surgery—other than an overwhelming appreciation for her medical team.

"The empathy they had was profound," Angela says. "My wishes were highly respected, and I truly felt they treated me the way they themselves would want to be treated if they were in my position."

*Want to learn more about The Bloodless Institute? Visit [www.bloodlessmed.org](http://www.bloodlessmed.org), or call 1-888-766-2566 for a referral to a physician.*

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THE WHOLE TEAM IS ON  
THE SAME PAGE ABOUT  
NOT USING BLOOD  
TRANSFUSIONS—THE  
PHYSICIANS ARE FAMILIAR,  
THE STAFF IS FAMILIAR,  
AND THE TOOLS THEY  
NEED ARE ALREADY THERE.  
YOU DON'T HAVE TO KEEP  
REPEATING YOURSELF  
AND SAYING, 'NO BLOOD.'  
BOTH MY PHYSICIANS HAD  
WONDERFUL DISPOSITIONS  
AND WERE GENEROUS,  
INTELLIGENT, AND DOWN-  
TO-EARTH.

— Patient Angela Mallory of Halifax,  
North Carolina

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Kevin and Angela Mallory



From left: Dakota, Logan, Ryan, and Rebecca Byrd



Logan with his sister Dakota

# On the Go AGAIN

Nothing could slow Logan Byrd down—until scoliosis struck. Thanks to bloodless spine surgery, he’s back to moving through life at a typical 11-year-old’s pace: fast.

Logan, a homeschooled sixth grader from Athens, Alabama, is a master of adaptation. He has lived with spinal muscular atrophy (SMA), a genetic disorder that weakens muscles and affects individuals’ abilities to control muscle movement, since age 2. The condition has forced Logan to use a variety of assistive devices for mobility; currently, he uses a power chair.

“SMA has never held Logan back from doing anything he wants to do,” says Rebecca Byrd, Logan’s mother. “He’s always moved and played and been as active as possible. The progressive loss of motion he’s experienced with SMA is slow, which has allowed him to learn how to adapt and compensate.”

Two years ago, however, a diagnosis of scoliosis presented Logan with a different sort of challenge: dealing with a disease progression that not only outpaced his ability to adjust, but was also painful.

“Pain had never been part of his daily life before,” Rebecca says. “He’s never been a complainer. Eventually, however, he got so miserable from being bent over in his wheelchair that he would ask

me to put him back to bed by lunchtime. He couldn’t play with his friends or make it through a day of school. He wanted to go, go, go like any child, but he just couldn’t.”

## Finding a Way Forward

Rebecca and her husband, Ryan, knew something had to be done about the increasing curvature of Logan’s spine before his quality of life got any worse. Finding a solution, however, proved difficult. As Jehovah’s Witnesses, the Byrds wanted Logan to have a bloodless procedure, but none of the surgeons they visited in Alabama, Tennessee, and Georgia would agree to perform spine straightening surgery without having the “safety net” of blood transfusions. The Byrds learned about several potential bloodless surgery destinations through their congregation, and extensive research led them to choose The Institute for Patient Blood Management and Bloodless Medicine and Surgery at Englewood Hospital and Medical Center.

The Byrds wanted to minimize the burden of travel on Logan, so they worked with their physicians in Alabama and the medical team at The Bloodless Institute to complete preoperative testing close to home and have the results sent to New Jersey. In early December 2015, the family drove to The Bloodless Institute for the surgery. Ofer Burshtain, MD, Bloodless Institute pediatric anesthesiologist at Englewood Hospital, met with Logan to put his mind at ease and prepare his body for the procedure.

“We injected Logan with a medication to increase his blood production,” Dr. Burshtain says. “We also planned how to conserve blood during the procedure using several methods. These included hemodilution—a process where blood is collected at the beginning of the surgery (keeping the blood attached to the patient’s circulatory system at all times) and then recirculated intravenously at the appropriate time during the operation. Another process would be to use a cell-saver machine, technology that allows physicians to collect the patient’s blood from the sterile surgical field in a closed system during the procedure and recirculate it back to the patient. Another medication can increase a patient’s ability to clot and minimize bleeding from the surgical field.”

On the morning of December 8, Alfred “Abe” Steinberger, MD,



Aryeh Shander, MD, and  
Ofer Burshtain, MD

Bloodless Institute neurosurgeon at Englewood Hospital, and his team began the operation to stabilize and straighten Logan’s S-shaped spine. Working level by level, they placed screws into bone and inserted rods along the entire length of the deformity during a surgery that lasted approximately 10 hours.

“Spinal fusion can cause significant blood loss even in the least extensive cases, and Logan needed much more work than the average patient to correct the deformity,” Dr. Steinberger says. “In certain particularly complex situations, we divide the procedure into two stages, with the second performed at a later date. With Logan, we kept going and going, and he wasn’t losing a lot of blood, so we were able to do the whole surgery in one sitting. His case went very smoothly.”



Alfred Steinberger, MD

### Back to His Old Self

Logan spent a week recovering and performing physical therapy at Englewood Hospital after the procedure, first in the intensive care unit and then on the pediatric floor. It took him a few weeks to regain his energy once the Byrds returned home to Alabama, but by mid-January, Rebecca recognized the Logan she knew before scoliosis.

“Each morning, Logan wants to get in his chair and go,” Rebecca says. “He’s enjoying school and having his friends over again. He’s even a couple inches taller, which he loves. His personality is back, and we’re so thankful.”

*To learn more about how the team of providers at The Bloodless Institute performs surgeries such as Logan’s, visit [www.bloodlessmed.org](http://www.bloodlessmed.org).*

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I WOULD TELL OTHER PARENTS THAT THE STAFF AT ENGLEWOOD HOSPITAL IS VERY COMPETENT AND PROFESSIONAL, BUT ALSO VERY FRIENDLY. THEY KNOW EXACTLY WHAT THEY’RE DOING AND THEY’RE GOING TO TAKE VERY GOOD CARE OF YOUR CHILD. YOU’RE ALSO GOING TO GET A DOCTOR AND A STAFF WHO YOU MIGHT CONSIDER FRIENDS ONCE YOU LEAVE THERE. IT’S A NICE BONUS.

— Rebecca Byrd, Logan’s mother

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### THERE’S NO ‘I’ IN ‘BLOODLESS’

Complex bloodless surgeries such as the spine straightening procedure 11-year-old Logan Byrd had in 2015 would be impossible without close collaboration and communication between a variety of providers at The Institute for Patient Blood Management and Bloodless Medicine and Surgery at Englewood Hospital and Medical Center.

“The advantage of our program is that communication is embedded in our care protocols,” says Aryeh Shander, MD, Executive Medical Director of The Bloodless Institute. “For our providers, collaboration isn’t a challenge; it’s our standard. This mindset allows the complexity of each case to become something with which everyone on the team is familiar. If a difficulty arises, everyone works together to solve it.”

The seamlessness of care at The Bloodless Institute is what most impressed Logan’s parents, Rebecca and Ryan Byrd, about their son’s experience.

“It never felt as if there was a lapse in communication between anyone,” Rebecca says. “We would have a question, and then, boom—someone had an answer. Ryan and I said to each other, ‘Do they [the members of Logan’s medical team] just call each other all the time? How are they doing this?’”



# Addressing Anemia— Making Bloodless Medicine Safer



From left: Karen Randall, APN; Sherri Ozawa, RN; Christina DeMarco, APN; and Jill Morrison, MD

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PATIENTS AND DOCTORS  
ALL UNDERSTAND THE  
IMPORTANCE OF BEING  
IN THE BEST POSSIBLE  
HEALTH BEFORE HAVING  
SURGERY. JUST LIKE  
WE WOULD WANT TO  
ADDRESS CONDITIONS  
SUCH AS HIGH BLOOD  
PRESSURE PRIOR TO  
ANYTHING PHYSICALLY  
TAXING, ANEMIA IS A  
COMMON MEDICAL  
CONDITION THAT NEEDS  
TO BE ADDRESSED.

*Christina DeMarco, APN,  
Administrative and Clinical Director,  
Englewood Hospital Infusion Center*

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The Englewood Hospital and Medical Center presurgical anemia program addresses the needs of patients with low levels of red blood cells before they undergo surgery. As a result, patients experience safer, more effective procedures with a lower risk of complications.

On a day-to-day basis, red blood cells are responsible for transporting oxygen through the body, keeping tissue alive, and promoting healing. When someone has surgery, those cells become even more important to keeping him or her well, especially if bloodless procedures are performed.

According to the National Heart, Lung, and Blood Institute, more than 3 million people have anemia—low levels of red blood cells in circulation or when red blood cells don't function properly.

“Anemia is a symptom of an underlying issue that needs to be addressed before patients undergo certain treatments or procedures,” says Sherri Ozawa, RN, Clinical Director of The Institute for Patient Blood Management and Bloodless Medicine and Surgery at Englewood Hospital. “That's why we've established the presurgical anemia screening program—to identify and correct these problems and give patients the best possible opportunity to thrive with treatment.”

## Streamlining Anemia Care

At Englewood Hospital, anemia screening is offered as part of standard presurgical testing, with a special focus on screening orthopedic and cardiovascular surgery candidates. Patients work hand-in-hand with Karen Randall, APN, a nurse practitioner with the anesthesiology team, to find out where they stand.

“I order tests that check the blood for levels of a specific protein called hemoglobin, which

is responsible for carrying oxygen,” Randall says. “In women, if that hemoglobin level is lower than 12 grams per 100 milliliters, or if it's lower than 13 in men, then we know that patient needs to receive additional care before being cleared for surgery.”

## Targeted Treatment

Once anemia is diagnosed, additional tests are used to reveal the precise reason for low red blood cell levels. In some patients, that may be a deficiency in certain nutrients, such as vitamin B12 or iron, while in others, internal bleeding or pre-existing medical conditions may be the cause. Even certain treatments or medications, such as chemotherapy, can cause anemia.

Anemia is treated at Englewood Hospital's leading-edge Infusion Center with a variety of therapies such as intravenous iron repletion or iron infusion, bone marrow stimulating injections, and supplemental B12 and folate.

“It takes a week for the body to create a red blood cell,” says Jill Morrison, MD, hematologist and oncologist with Englewood Hospital. “That's why it is so important for doctors to refer patients to us for screening and care. The sooner we identify patients with anemia and begin care, the better prepared they can be for surgery.”

*For more details about anemia and how it's treated at Englewood Hospital, visit [www.bloodlessmed.org](http://www.bloodlessmed.org) and select “Anemia Information.”*



By Aryeh Shander, MD, FCCM, FCCP, Chief of Anesthesiology, Critical Care Medicine, and Hyperbaric Medicine at Englewood Hospital and Medical Center and Executive Medical Director for The Institute for Patient Blood Management and Bloodless Medicine and Surgery at Englewood Hospital



By Sherri Ozawa, RN, Clinical Director of The Bloodless Institute

## Why Do Many Bloodless Programs Fail?

The healthcare environment has undergone dramatic and rapid change over the past two decades, and all hospitals have had to carefully re-examine the services they provide to the communities they serve. Hospitals are under constant and increasing pressure to reduce expenses, develop new and important programs, and keep patients safe and happy.

This all has to happen while the cost for health care is rising dramatically, yet insurance companies and the government are working hard to pay as little as possible for services rendered to patients.

In light of this, some hospitals see the opportunity to attract new patients and bring in more revenue by starting a “bloodless program.” Many hospitals see this as an opportunity to reduce some of the tremendous costs associated with transfusions. While this makes good sense, many hospitals discontinue these programs after a short period of time. Why do these bloodless programs often fail?

Over many years, we have observed three key factors that increase the likelihood of failure.

1. Assigning the creation and running of the program to a hospital employee who is already overburdened with other responsibilities
2. Doctors, nurses, and other caregivers who are unwilling or lack the necessary education to change their current way of treating patients
3. Hospital administrators who have unrealistic expectations of all that is involved in the creation and success of a comprehensive bloodless center

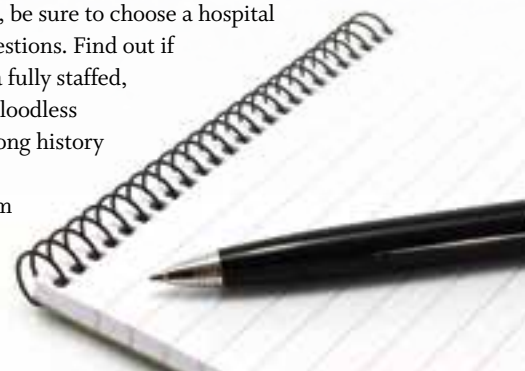
So, as you can see, it takes much more than an ad in a newspaper or a brochure from a hospital to prove that it has a reliable bloodless program. It takes full cooperation, education, and years of experience to provide a fully comprehensive bloodless program.

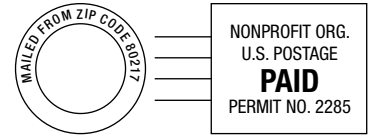
## What Makes a Successful Bloodless Program?

It may seem hard to believe, but organized bloodless medicine and surgery programs have been in existence for more than two decades. You may be able to name a number of hospitals that, over the years, have advertised either directly or by word of mouth that they were promoting a bloodless program. However, you may also know of one or more hospitals that at some point later on decided to terminate their program. Why does this happen? And how does this affect your decision about where to seek care for you and your family?

Successful bloodless programs require extensive planning and implementation, as well as re-education of hundreds or thousands of doctors, nurses, and other hospital staff in a new and better way to care for patients. For already too-busy professionals, this is no small task and takes a great deal of time and effort, something often grossly underestimated by hospitals who may only see a bloodless program as a “quick fix” to attract more patients.

It is good to know, however, that a number of hospitals around the country have been willing and are able to invest the adequate amount of resources to create programs that take care of patients with the best available care while respecting their wishes. If bloodless care is important to you, be sure to choose a hospital carefully. Ask questions. Find out if the hospital has a fully staffed, comprehensive bloodless program with a long history of taking care of patients for whom blood is not an option.





Choices is a publication of the Marketing and Communications Department of Englewood Hospital. This publication in no way seeks to serve as a substitute for professional medical care. Consult your physician before undertaking any form of medical treatment or adopting any exercise program or dietary guidelines.

## Targeted Treatment = *Life-changing Results*

With the addition of the TrueBeam™ Radiotherapy System, the Coe Radiation Oncology Center at Englewood Hospital and Medical Center's Cancer Treatment and Wellness Center is redefining the way physicians perform radiation therapy.

Often offered in conjunction with surgery, chemotherapy, or both, radiation therapy uses radioactive energy from x-rays and other sources to destroy cancerous cells. The National Cancer Institute estimates that roughly 50 percent of cancer patients receive some type of radiation therapy.

While radiation therapy can be an important part of cancer treatment, radiation doesn't discriminate between cell types—it can damage both healthy and cancerous tissues. In some cases, physicians may even avoid prescribing radiation therapy because they can't deliver radiation to a tumor without risking damage to other parts of the body.

### A Game-changing Technology

The TrueBeam Radiotherapy System alleviates many of the concerns associated with traditional radiation therapy. The advanced technology allows physicians to take 3-D images of the tumor and adjust the dose of radiation to the tumor's specific size, shape, and location within the body. Throughout treatment, the system continues to track the tumor's location and, if a tumor shifts because someone takes a breath, for example, the radiation beam can shift with it.

"To say this is a game-changer is an understatement," explains David Dubin, MD, Chief of Radiation Oncology at Englewood Hospital. "The system performs accuracy checks

every 10 milliseconds—about 30 times faster than the blink of an eye. And because every possible angle is accounted for, we eliminate the need for patient repositioning or having patients hold still for long periods of time. This system was definitely designed with patient comfort in mind."

For patients, the TrueBeam Radiotherapy System means a more comfortable treatment. People can talk with a therapist or listen to music during their sessions and no longer have to lie still for an extended time. Because the radiation dose is targeted directly to each individual tumor, the system also helps minimize the risk of damage to healthy tissues. It can easily reach difficult-to-treat cancers in the head and neck, breast, lung, and prostate, according to Varian Medical Systems. Physicians at Englewood Hospital also use the system to treat abdominal tumors.

"A cancer diagnosis can be overwhelming, no matter what the type or outlook," Dr. Dubin says. "Our patients are fighting for their lives. We're fighting for their lives too, which is why we're arming ourselves with the right tools. We want to ensure the best possible outcome and chance for survival."

Visit [www.bloodlessmed.org](http://www.bloodlessmed.org) to learn more about *The Bloodless Institute at Englewood Hospital*. For a referral to a blood management physician, call 1-888-766-2566.



David Dubin, MD, and Dr. Zhang