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PROSTHETIC & ORTHOTIC MAGAZINE

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Patient Profile

Bill McConnell: Hunter Takes Aim At A More Active Outdoor Life

Caring For
Yourself

Exercises for Agility, Balance
and Strength That You
Can Do At Home

LAWALL
PROSTHETICS & ORTHOTICS



Caring for Yourself Is More Important Now Than Ever Before

IT

is imperative that we care for both our physical and emotional health on a daily basis. After an injury or change in a life situation this may become a more difficult task, but these are the exact times we need to focus on ourselves and our needs. During the current pandemic, caring for our mental and physical health has presented us all with additional challenges and hurdles. Perhaps we can't get outside to promote physical activity, or head to the gym for our regular workout...or maybe we aren't able to go to our support group meeting. Below are some tips and advice from experts to help us all get through this difficult time.

Taking Care of Your Mental Health

Don't lose sight of the fact that this uncertain time is just a snap shot, it will eventually pass. Using your downtime to try something new is a great idea. Seeing this time as a positive opportunity rather than a negative roadblock will help your outlook on the current situation.

Exercises to Maintain Physical Health

Of course before you start an exercise program you need to check with your physician and perhaps have a physical therapist or trainer help you get started. But whether you are new to dealing with a disability or have been adapting and coping for some time, flexibility and strength are essential to keeping you moving. Below is a sampling of some strength, balance, and agility exercises that can be done at home. A more complete list of exercises can be found on the Amputee Coalition of America website.

SOME SUGGESTIONS TO MAINTAIN YOUR MENTAL HEALTH ARE:

- **Maintain a routine throughout the day.**
- **Stay connected with family and friends. (We are fortunate to have technology that helps us keep in touch such as FaceTime and applications like WhatsApp and Zoom.)**
- **Be mindful of your source for news updates and the amount of time you are spending watching the news. Staying up-to-date with information is important, but too much time can become detrimental and cause additional stress and anxiety.**
- **Eat a balanced diet and stay active. (See below for some tips and suggestions to help maintain your physical health.)**

STRENGTH EXERCISES

■ Seated Push Up

Place a stable chair against a wall to prevent it from tipping over. While sitting in the chair, place your hands on the armrests. Push down into the armrests to raise your hips one to two inches off of the seat and then rest. To make this more difficult, lift one leg.

■ Partial Squats

Hold onto a sturdy piece of furniture or the kitchen sink. Place even weight onto both legs, and simply squat as if you are sitting on a very tall stool. You're not working toward a full squat. Do this 10 times. Exercising the muscles of your thighs will make it easier to sit and rise from a chair.

■ Wall Squats (More Advanced)

Stand with your back against the wall beside a sturdy piece of furniture in case additional support is needed. Slowly slide your body down the wall until your knees are slightly bent. To make this exercise more difficult, slide a little lower down the wall or do this on one leg. You can stand on your intact leg or your prosthetic leg. Hold this position for five to 30 seconds. Be sure to breathe the entire time you perform this exercise. Holding your breath is bad for your heart and your hemorrhoids! If your amputation is above the knee, you will need to do this exercise on your intact leg only since most prosthetic knees will not support your weight if there is too much bend in the knee.

BALANCE EXERCISES

■ Even Weight Bearing

While standing in line, shaving, or brushing your teeth, think about how much weight you have on each leg. Do you stand with most of your weight on your unaffected leg? Many people with an amputation shift all of their weight onto the unaffected leg and use the prosthesis only as a perch. Stand with your weight evenly on both legs while performing one typical daily task, such as talking on the telephone. By increasing your awareness and changing this one simple habit, you can improve your balance on a daily basis.

■ All Fours

While on your hands and knees, begin by raising one arm in front of you. Put your arm down. Now try to raise a leg behind you. When you can do this with ease, raise your opposite arm and leg together, hold them for two to three seconds while breathing, and relax. Then switch sides. Keep your eyes down so that you don't strain your neck, and keep your back flat.

■ Uneven Surfaces

A good way to work on your balance is to make the surface on which you are standing uneven. Place a pillow or cushion on a carpet and stand on it. You might want to rest your hands on a table top. For safety, be sure the pillow is on carpet and not a slick surface. Sway back and forth slightly or reach for something on the counter. You will need to tighten the muscles of your residual limb inside the prosthetic socket.

AGILITY EXERCISES

■ Braiding

Using the back of a couch for balance assistance, take a few steps to one side crossing your prosthetic leg in front of and then behind your unaffected leg. Stand as straight as you can and try to use your hands for balance only. If your amputation is above the knee, be sure to take small steps ensuring that you don't put too much weight on the toe of your prosthesis, which could cause the knee to bend.

■ Toss

Do this exercise with a friend. If you are using a prosthesis and really want to challenge your balance, stand up to catch the ball. If you are not using a prosthesis or are just beginning this exercise, sit while you catch the ball. This exercise requires strength, coordination, balance and agility, and it's fun! 🦋



Did you know?

Physical Activity for each age group:

<https://www.cdc.gov/physicalactivity/basics/age-chart.html>



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TeamLawall Continues to Move Forward in 2020

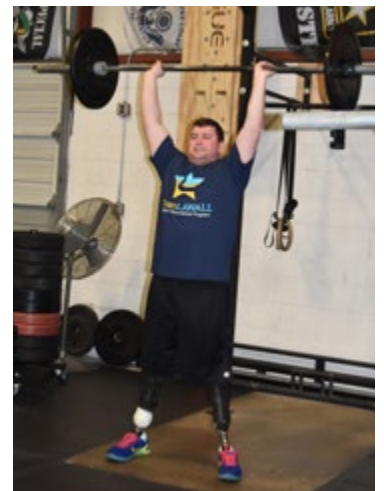


IT seemed 2020 was off to great start for *TeamLawall*. In January, *CrossFit Turbocharged* of Cherry Hill, NJ hosted us at their gym for a super event! It was a great mix of participants, physical therapists and Lawall employees coming together to learn how crossfit can be adapted to help people of all abilities stay or increase their activity level!

In February, we teamed up with the *Hammerheads Sled Hockey Association* to expose patients and therapists to the sport of sled hockey. Everyone who attended the event had the opportunity to hop on a sled and give the sport a try. Some of our participants were even able to join the Hammerheads for some drills during their practice. It was an eye opening experience and such a great workout!

TeamLawall was about to announce the date for our dance clinic at *Amanda Page Dance Company* of Yardley, PA in the spring, as well as another crossfit event. Unfortunately, both events had to be postponed due to the pandemic.

As an organization, *TeamLawall*, is optimistically looking to the future and anxiously awaiting our ability to host more events. We are continuing to raise money and awareness of the future need for events that will provide people with disabilities

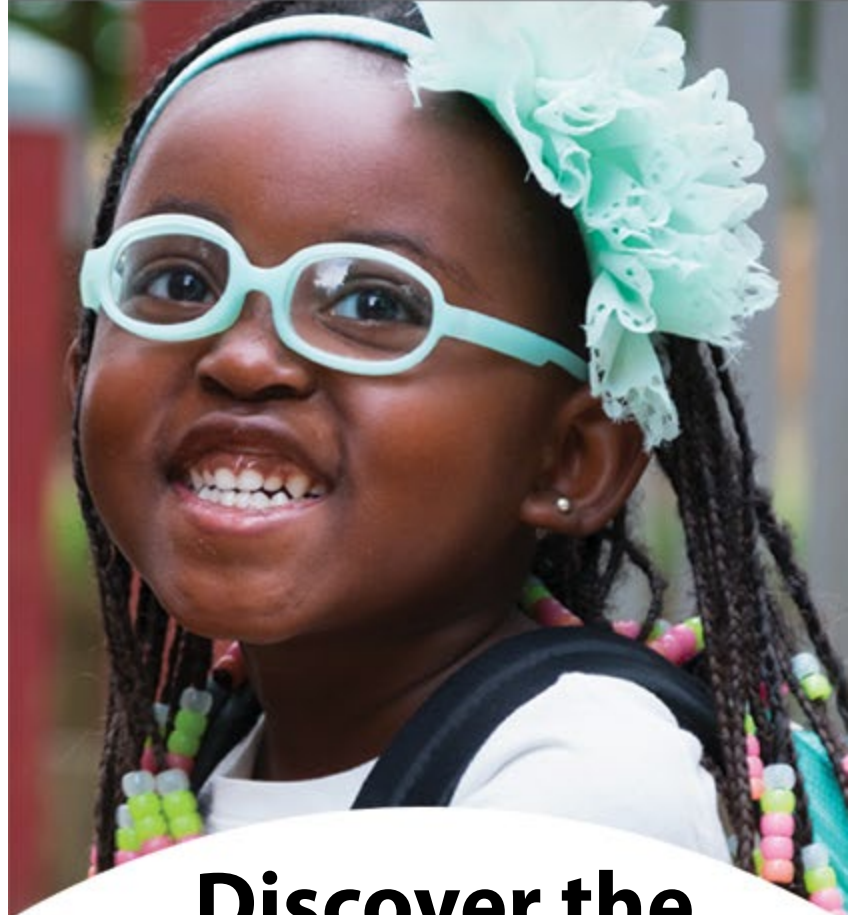


opportunities to try new activities and enable them to expand their personal boundaries. As we push pause on our events for now, we hope you will follow us on Instagram and Facebook to view posts with virtual exercise classes and other types of encouragement that help keep us all moving ahead in this uncertain time! 🦋



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– Joshua U., CPO



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HUNTER TAKES AIM AT A MORE ACTIVE OUTDOOR LIFE...

and Bill McConnell doesn't often miss what he aims at! A gun enthusiast and longtime hunter, he refused to allow severe damage to his right leg to stand in the way of doing the things he loves. And now, after a transtibial (below-the-knee) amputation and a new prosthetic Proprio Foot, he's picking up the pace in pursuing his favorite activities.



Patient Profile

IN December 2006, McConnell was returning home to Hummelstown, PA, after a two-day trip on his motorcycle, when he was the victim of a serious accident he's unable to recall.

"They found the bike on one side of the guard rail and me on the other, with my femur sticking a foot out of my right leg, my ankle crushed, and my femoral artery torn.

"It was just a *horrible* accident," he recalls, adding that the quantity of blood lost at the scene nearly cost him his life.

Subsequent efforts to repair his upper leg were hampered by an infection that defied detection, and by the time five surgeries had resolved the upper leg issue, the lower leg was severely compromised.

Despite five additional surgical attempts to save it, persistent infection in the lower leg had caused the bone to die, McConnell reports, "—and you can't bring dead bone back to life."

After four of the five lower leg surgeries failed, McConnell and his wife agreed in 2013 that it was time to choose the transtibial (below-knee) amputation option.

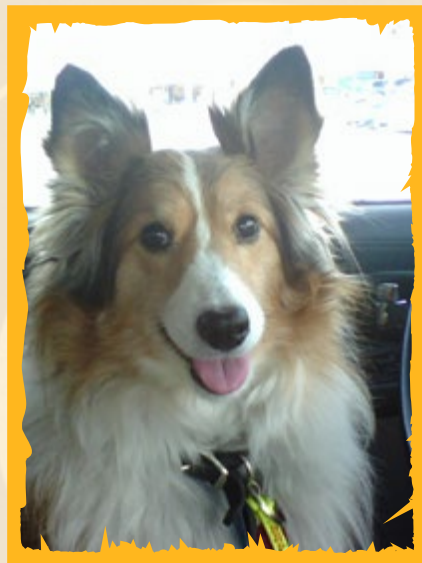
"I had very literally walked on a broken ankle for seven years following the accident," he recalls. "The leg still worked—but walking on a broken ankle hurts! I went through endless amounts of pain and suffering tied to an infection—and not only does that beat up the body, but it beats up the soul."

He shared one treasured bright spot from that dark period, however:

Partners in Pain

Shortly after his accident, McConnell's wife, Kay, adopted a rescued Shetland Sheepdog named Lacy.

The little dog fit beautifully into



the family; but as she aged—and as McConnell's painful complications continued—Lacy developed severe arthritis. "I couldn't pet her anywhere but on the top of the head that it didn't hurt her," he remembers.

Activity was painful for her, and with inactivity, Lacy gained weight. "I called her my little spudmeister, because she looked like a potato with little legs," he joked fondly.

"Some nights while Kay was upstairs asleep with Lacy nearby, I would be downstairs, dealing with the pain. You can only take so many narcotics. And in those moments, I was in just unbelievable pain, with the pain transferring from body to soul.

"One night, I heard this little dog struggling weakly to make it down the stairs, one step at a time. Just for her to walk, hurt her; but she made it down the stairs, walked over and lay down on the floor next to me. It was as though she were saying, 'You might have to hurt, but you don't have to hurt alone.'

"This was the first of many times she came to comfort me, though it cost her a lot of pain and suffering to do that."



Indomitable spirit; unsinkable humor:

Despite those seven challenging years prior to the amputation, McConnell never lost his determination to deal with the difficulties and continue business as usual, as much as possible.

He continued working as a regional sales manager and field representative for Lebanon Seaboard, a national lawn and garden products company, both before and after his amputation—until his 20-year retirement in 2016.

He also continued to pursue his hobbies and special interests, many of which involve shooting and hunting—including experimentation with ballistic theory, loading and test-shooting his own cartridges. His interest in military



armaments has led him to explore aircraft museums, as well.

"Although I've hunted off and on my entire adult life, the greatest fun I get in hunting is proofing theory on my loads," he explains. He has also taken dozens of classes on gunfighting since he broke his leg—simply because "it has been a massive challenge that I enjoy—the first class was taken from a wheelchair."

One particularly difficult medical class, taught by an ER doctor with SWAT team credentials, required McConnell to apply a tourniquet to his wounded partner in a training scenario wherein the two were under fire and the partner was actively defending them (with a mock firearm).

Performing the task while keeping low "was an exceptional effort, as my right knee only bends 90 degrees," he commented.

Prior to his amputation, he and his wife took a hunting trip to South Africa in 2011. At that point, five surgeries had been completed above the knee, but the foot and lower leg had undergone only two surgeries: By wearing a support boot for the broken ankle, however, McConnell was able to hunt with the aid of an expert PH (Professional Hunter) who served as educator, guide, and protector.

McConnell describes Hans as a

Although McConnell lists scuba diving as one of his earlier interests, he notes that he had actually quit diving even before the accident. Afterwards, "I did what little I could with one leg, but I never got my stamina back after the accident. And if you don't have stamina in the ocean, you're going to drown."

"The amazing thing about the Proprio Foot is that I can keep doing things that I would have stopped doing without it..."

Amazingly, through it all, he never lost his sense of humor:

"I had actually watched a limb amputation on YouTube before my surgery—I just wanted to see how it happened—it's an interesting process," he explained.

Armed with his YouTube education, McConnell, who had received an epidural but was awake during his own amputation surgery, chose his moment carefully.

"Just after the absolute, total point of no return, when the surgeon had made those three crucial cuts that began the amputation, he paused and asked, 'Are you okay?'"

"I'd been waiting weeks for this," McConnell relates gleefully, "so I said, 'Hey, is it too late to change my mind?'"

The surgeon was not amused, but McConnell admits that "a very dirty look" was all the reaction he was able to detect through the surgical mask before the doctor went back to work.

No Regrets

McConnell is quick to emphasize that he has never regretted losing the leg, and even notes that, as he sits and talks, he can't really tell that his

right leg is missing. "I just feel like usual; it always feels like it's there."

Following the amputation, his search for a prosthesis led him to Lawall, and Jeffrey Koach, CPO.

"Jeff has been a godsend to me from the beginning to the present," McConnell says. "One of the neat things of many about Jeff is that he has a beginning-to-end comprehension of how this system works, starting me with my first socket and my first foot in 2013."

McConnell progressed from that first preparatory foot that allowed him to get used to ambulating with a prosthesis, and was then fitted with an energy-storing carbon fiber foot.

Koach recalls that when McConnell started with the Flex-Foot, he did very well with the adjustment. "He's an avid walker; he walks around his neighborhood as part of his exercise program, and he's done great with that. He's been slowly increasing his activities and getting back to what he wants to do; he was excited about being able to go hog hunting with his friends down south."

McConnell found the Flex-Foot so satisfactory that he wasn't ready to consider a foot that offered added advantages—especially an adaptive microprocessor-controlled foot that anticipates the need and raises the forefoot to increase toe clearance—and adjusts the ankle angle to changing terrain.

"I didn't want the Proprio Foot," McConnell remembers, "because I didn't believe it could figure out what I was about to do—no way!"

"Then one day Jeff called and asked if I'd like to model a Proprio Foot—and try it out for some people who'd like to see how it worked in action."

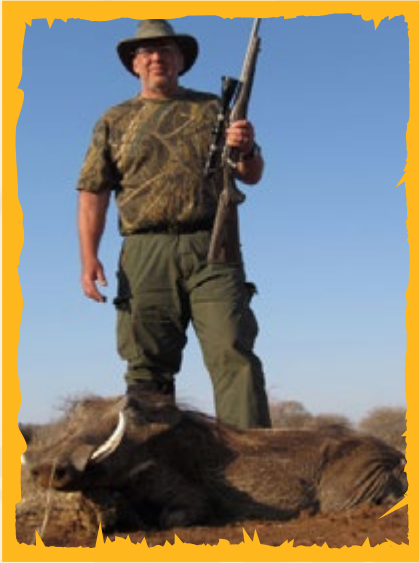
McConnell agreed to participate, and made a shocking discovery:

"No, it can't predict what I'm going to do. But it guesses **really** well!"

Koach enumerates the features that make the Proprio Foot an ideal choice for McConnell:



friend as well as "a wonderful PH who dealt well with my limitations."



"It adapts really well to uneven surfaces, and it adapts well to going up and down slopes. With Bill's activity level, and his neighborhood walking program, he's not just walking on a track—he's going up and down hills. Typically that's something that amputees really notice, because most prosthetic feet are designed to walk on level surfaces and don't adapt to climbing. But when you start going up a hill, this foot actually adapts at the ankle by dorsiflexing—or if you're going downhill, it plantar-flexes, like a normal foot would do.

"Because of the sensors in the foot, it can tell whether you're going up or down a slope, and changes the angle of the ankle and the foot automatically."

It also does the same things when you're sitting in a chair, he points out. "When you're sitting in a chair, the toe of a normal prosthetic foot will be an inch or two above the floor, while the heel is resting on the floor—and it's just a little bit unnatural. But this foot can tell when you're sitting, and it will actually bring the toe down so it's resting on the floor like a natural foot would do."

The Fantastic Foot...

McConnell acquired his Proprio Foot in June 2019, and is now an enthusiastic champion of the device. The problems he'd experienced with walking on uneven

ground "have simply gone away!" he notes. "It adjusts instantly for balance, to keep you from being thrown to one side. It's so good on the side-to-side balance that a person can forget it's a 'store-bought' foot!

"The amazing thing about the Proprio Foot is that I can keep doing things that I would have stopped doing without it. That's partly because it makes so many things easier; but it's also because the foot allows me to exercise a lot more and remain in better physical condition to fight off the effects of age and inactivity. It has been very much a double plus for me!"

In December McConnell reported that after wearing the foot for six months, he's put about 220 miles on it. "I had increased my activity to where I was walking two miles a day four days a week. But after three or four weeks, I had to cut it back, because my real foot couldn't take it!"

He shared pictures of his recent trip to the 1,000 yard shooting range, where he makes suspended steel plates "ding" at 500 yards. "I was alone most of the time because there aren't that many silly people who go out at 30 degrees to shoot. A person needs to be pretty sure-footed to do this alone and in the snow."

Although the years have tempered

his natural tendency to be a more independent person than most, he recognizes that the foot enables him to tackle with confidence more of the things he enjoys, especially outdoor activities like walking, hiking, hunting—and 'just being mobile.'

At 65, the father of two grown children, married to "the most wonderful woman that God ever put on this earth," McConnell is pleased that he still doesn't need anyone to hold his hand.

"In my opinion," he believes, "the genius of the foot is not that it makes you better. What it does is offer you the opportunity to make *yourself* better. It doesn't give you the muscles or the coordination or the strength; but it gives you the opportunity to *build* the muscles, the coordination, and the strength—because then the foot will keep up with you.

"It's like a guitar," he explains. "Buying one doesn't make you a musician; but it gives you the opportunity to become one."

When he first tried on the Proprio in front of the watching audience, people wanted to know what he thought of the foot. "Ask me in 100 miles!" was his response.

Now, says McConnell, after many

more than 100 miles, he can confidently say that it keeps getting better and better, the more he walks on it.

"I just recently discovered that, as I adjust my balance, with the lateral use of the foot I can almost pretend that I'm ice skating, the way you kind of shift your balance—it's really cool! It helps you with walking better.

"That was just two week ago that I noticed that—and I've had the foot for six months! It grows with you."

Koach is also aware of the greater capabilities McConnell is enjoying, the longer he wears the foot:

"Bill sends me regular emails about how his walking has increased. In terms of mileage, he's able to do a lot more than previously. He had been trying to walk a mile three times a week; now he's up to a mile and a half or more—four times a week!"

Chances are that in another year of wearing the Proprio Foot, he'll have a lot more stories to share, says McConnell, because he keeps discovering new things about it. "As I get better, stronger, I discover more things that it will help me to do. It's really better than I imagined."

His enthusiasm for the changes the prosthesis has made possible prompted him to present his prosthetist with a cake that proclaimed that Koach was his hero.

"...and he was!" McConnell exclaims. "If I ever have a question or an issue, I reach out to Jeff and he's there to help. He has made my life a lot better!"

The admiration is mutual. "Bill has definitely been somebody who hasn't let his injuries hold him back," Koach notes. "He's certainly been eager to do as much as he can. Before his amputation, he had to go through multiple surgeries to try to save his leg, and once he made the decision to have the amputation—he hasn't looked back."

To others working through rehabilitation challenges of their own, McConnell shares advice that reflects the enthusiastic optimism with which he approaches life and the future: "The further you go, the further you can see." 🦋



Updated Proprio Foot® Offers Improvements

This issue's patient profile highlights Bill McConnell and his experience with the Proprio Foot®. Össur created the Proprio Foot in 2006 with the goal of reducing the number of trips and falls a wearer might experience. It is ideal for low to moderately active patients.

Recently, Össur has come out with an updated version of their original 2006 Proprio Foot design which offers enhanced safety and stability features. The updates include an integrated battery plus a new foot module that provides 44% more power at toe-off.

THE NEW & IMPROVED PROPRIO FOOT

- Designed for low to moderately active individuals
- Reduces risk of falls by increasing toe clearance in swing phase and adjusts ankle depending on the terrain
- Has a chair exit mode to help wearers get in and out of chairs
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Amputee National Conference To Go Virtual



IN this current pandemic environment, adaptability is the key to success. Being prepared to rapidly change the way we do things in order to conform to current restrictions and conditions is what continues to push people forward.

For nearly two decades, the Amputee Coalition of America has hosted an annual national conference which provides the amputee community throughout the United States an opportunity to connect with one another. Historically, these conferences have been a huge success, allowing amputees to talk directly with manufacturers, wander exhibit halls to check out the latest advancements in the field, and sit in on educational talks.

As a proud national sponsor of the Amputee Coalition of America, Lawall has always encouraged our patients, staff and partners to attend the conference, however this year's event may look a little different. As you may have heard, this year's conference has been transitioned from a live experience to a virtual one due to COVID-19. Rest assured that the Amputee Coalition is focused on making this conference an impactful and memorable experience for everyone involved. Indeed, this is an exciting opportunity for all of us.

While holding a conference in a virtual space comes with



its own set of challenges, moving the conference to a virtual experience will actually allow the conference to be more accessible to amputees throughout the country. In the past, Lawall has found that it has been taxing for some of our patients to attend the conference due to the logistics and expenses of travel, so we are hoping that this "change of venues" will encourage many more individuals to participate.

Because of our status as a national sponsor of the ACA, Lawall will be in a unique position to relay the latest information regarding the upcoming conference. In fact, we will continue to update conference information through our website and Facebook pages from now until this year's event concludes.

Please consider taking advantage of this great opportunity for our amputee community! 🦋

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Fax (215) 338-7598

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Fax (717) 541-1607

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Fax (302) 429-7683

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Fax (302) 427-3682

FLORIDA

Orlando

Nemours Children's Hospital
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Orlando, FL 32827
Phone (407) 567-5190
Fax (407) 567-5191

FLORIDA (cont.)

Orlando (Satellite Office)

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1717 S. Orange Avenue, 3rd Floor
Orlando, FL 32806
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Lake Mary (Satellite Office)

Nemours Children's Specialty Care
3300 W. Lake Mary Boulevard, Suite 100
Lake Mary, FL 32746
Phone (407) 567-5190

Melbourne (Satellite Office)

Nemours Children's Specialty Care
1270 N. Wickham Road, Suite 490
Melbourne, FL 32935
Phone (407) 567-5190

Lakeland (Satellite Office)

Nemours Children's Specialty Care
1324 Lakeland Hills Boulevard
Lakeland, TN 33805
Phone (407) 567-5190

Winter Garden (Satellite Office)

Nemours Children's Specialty Care
2020 Daniels Road
Winter Garden, FL 34787
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Fax (856) 691-7147

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Fax (856) 691-7147

Cape May Court House

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Cape May Court House
NJ 08210
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