

NasaClip – Helping to Make A Trip To the Emergency Room for Nosebleed A Thing of the Past



Dr. Liz Clayborne
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NasaClip

Interview conducted by:
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CEOCFO: Dr. Clayborne, what is NasaClip and why do we need it?

Dr. Clayborne: NasaClip is going to be the Band-Aid® of nosebleeds. As an emergency physician, I was shocked to learn that we see over 500,000 ER visits a year for nosebleeds. I could not believe that people would show up at the ER and wait three or four hours to see a physician like me over a problem that we consider to be relatively simple. I soon discovered

there are no great solutions either inside or outside the hospital for nosebleeds. Since nosebleeds are most common in children ages 2-10 and older adults 55-80, those are the populations least likely to manage bleeding when it starts at home.

You need to apply constant and firm pressure over your nasal flare which is the bottom part of your nose, for ten to twenty minutes which sounds simple but it is hard to do. People often let go every few seconds or they will stuff things up their nose that makes the bleeding worse. When they get frustrated trying to get it to stop bleeding, they come to the ER. NasaClip provides firm nasal compression with sponges that can go in the nose that can be medicated that empowers anyone anywhere to stop bleeding fast.

CEOCFO: Did NasaClip come to you through an aha moment?

Dr. Clayborne: I was frequently taping together tongue depressors for nosebleed patients when they came in because we did not have anything to give them when they arrived at the ER, so they were bleeding all over the waiting room. In addition, because nosebleeds are not considered a high acuity patient like a heart attack or gunshot wound, patients often had to wait and we did not have anything to do but tell them to pinch their nose. That is why we would makeshift these clips by taping together tongue depressors.

I was in the middle of doing that when I thought there had to be something better for nosebleeds that helps people hold pressure and prevent them from having to come to the hospital altogether. It got me thinking and when I investigated the market, I was surprised that there were no good solutions. That is when I had that aha moment that, "As a ER Doc, I know the steps to stop nosebleeds quickly." I knew I could design a device that would allow someone to do that at home or any environment so that I could take care of patients, get them out the door and give them a tool that would prevent them from having to come into the ER the next time.

CEOCFO: What were some challenges on the business side of NasaClip?

Dr. Clayborne: Physicians are not necessarily natural business leaders. We have a very different way of thinking about problems so there was a lot of trial and error when it came to moving my business forward. There was a picture I had in

my head that I wanted to make into a physical device and bring it to market, so this was a long process. I first thought about this back in 2015 when I was a resident. In the beginning, I just focused on my intellectual property, so I got my patents done. I did have great guidance early on from an attending physician who involved with the Innovation Center at George Washington University, where I trained.

I was able to do some pitch competitions and participate in the U.S. National Science Foundation's Innovation Corps (I-Corps™) program which made sure I was solving a problem that people would pay for and that there was a good product market fit. Then life got busy and I graduated from residency and started an academic job, and I started a family. I was doing all these things and NasaClip was on the back burner for a long time.



In 2020, I entered an accelerator program with TEDCO which is a Maryland state-based fund. They had great executive management coaching that they provided me along with some additional capital. That is where I got my first lift which got me to prototyping my device and being able to raise my first million dollars in fundraising primarily from angel investor groups. From there we accelerated our growth. I added to my team and my advisory board. In July of 2023, we launched NasaClip on our website NasaClip.com. We are now in the process of getting it into hospitals, urgent care, schools, and homes across the country.

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CEOCFO: *What is involved in manufacturing?*

Dr. Clayborne: There is a lot that goes into manufacturing. The device uses a wire that has a memory component so that when you pinch it shut it allows you to get the customized pressure that you need to stop your bleeding. There are also silicone pinch pads. We made several design iterations of the device that we needed plus the medical-grade foam that goes into nostrils. We currently import a few components internationally and the medical-grade sponge comes from the US. Everything is assembled and manufactured in Baltimore, MD where our engineering team works.

I have future designs for the device that will hopefully be all plastic injection molded, which will make it easier to manufacture because as a startup, we are always looking at ways to reduce our cost and improve the quality of the device. I think what we have in the market now is wonderful, but we are working now to improve the device to meet the needs of sports medicine and other users. There are always exciting changes on the horizon.

CEOCFO: *You mentioned customizable pressure; how would a layperson know how much pressure is needed?*

Dr. Clayborne: What we mean by customizable pressure is it that you can pinch the device shut and apply the pressure needed to stop your bleeding. Some people will pinch tightly and if you are experiencing pain, numbness, or tingling, it might be too tight in which case you can loosen it. Some people have light nose bleeds and therefore they do not need the device to be as snug but other people might have more robust nosebleeds so they can make it as tight as they need,

to stop the bleeding. The instructions are to firmly pinch shut so that you cannot breathe in or out of your nose until the bleeding has stopped.



CEOCFO: *The sponges can be medicated; when would that be necessary?*

Dr. Clayborne: There are some medications that physicians frequently use that are either hemostatic agents or vasoconstrictors, so oftentimes in a medical setting like an emergency department, I might put some agents on the sponges to facilitate stopping the bleeding even faster. Most nosebleeds will stop with mechanical force alone, so you just really need that pressure applied to the right anatomical location. I think medications often help to stop bleeding faster and prevent re-bleeding, so when you remove the device, it make it less likely that you are going to re-bleed.

I designed the sponges help to get the medication over an area inside your nose called, Kiesselbach's Plexus. It is a coalition of vessels inside the nose and the most frequent area that you see bleeding when you have anterior epistaxis, which is the medical term for the common nosebleed. If you can get medication over that area and keep it there, then you are likely to stop the nosebleed a lot faster and easier and prevent re-bleeding. Just using force without medication also works but I wanted my device to have the utility to use medicine if a physician or a medical provider wanted to use the medication.

CEOCFO: *Is this a one-time use?*

Dr. Clayborne: Yes, it is a one-time use device, however, you can remove the device after leaving it in place for ten to twenty minutes and rinse the sponges off with clean water and reinsert it if you are still bleeding. Let's say you take it out and you are still dripping, you can rinse it out and put it back in, you do not have to open up a new device, but you would not use it for the next day.

CEOCFO: *How do children react to the NasaClip?*

Dr. Clayborne: I wanted to be sure I provided a solution that addressed children because as you might remember, the nosebleeds are most common in children ages 2-10, and older adults over 55. That younger population makes up almost 50% of nosebleed incidence and there was nothing on the market directed specifically towards kids. I thought it was important to give parents a solution that works for them that their kids would tolerate. We use soft sponges that are not expanding inside the nose, they are just helping to deliver medication if you are using them.

For smaller kids, you can remove the sponges if you do not want to put anything in the nose at all because sometimes children two or three years old might not want anything in their nose, but you still need that mechanical force, so you can take the sponges off and just apply that external pressure. The kids tolerate NasaClip well because it is compact and sits low on the face so it is never obstructing their eyes or mouth, and it is as tight as it needs to be without being uncomfortable.

I find the little kids appreciate it because they do not have an adult in their face trying to pinch their nose. They now have a device that is a lot more comfortable and manageable giving the pressure they need, and then can be removed easily.

CEOCFO: *Why did you decide on purple?*

Dr. Clayborne: When I was in the stock room in the hospital, I noticed that nothing was purple. I wanted a device that had a color that would be easily identified when you needed to grab it and purple was a color I always liked, so I thought it would be easy for a nurse to run and get the NasaClip and keep it up front in their triage room. In your medicine cabinet, you can identify the purple NasaClip anytime you needed to use this device. The adult form of the device is purple and fits most people ages 14 and older. The teal-colored device is for our kids who are ages 2-13.

CEOCFO: *Are you surprised no one thought about something like this before?*

Dr. Clayborne: I was shocked that they did not have much innovation for first line nosebleed rescue. There were some clips on the market, but the feedback I heard from school nurses another medical professionals indicated that it did not work that well and that they slid off. There are some powders, gels, or inserts and some people put tampons up their noses. Most people were just using tissue and trying to hold pressure. I was surprised there was not much on the market.

Oftentimes when I show people how to use NasaClip or they go to our website and see our instructional video and they think it is so elegant and simple, they cannot believe that it did not exist before now! I have several issued patents, so this is indeed a novel technology. I am excited to bring something to the market that is going to allow anyone anywhere to stop nosebleeds fast.

I look at NasaClip as a ubiquitous medical product that will be like the Band-Aid® of nosebleeds and something that will be stored in every first aid kit, home, office, school, clinic or sports field in the future. I look forward to it becoming a household brand name for nosebleed rescue.

CEOCFO: *How do you go from having it available on your website to having it being in every home and every emergency kit?*

Dr. Clayborne: There are many different channels and marketplaces that we can approach since this is a consumer medical device, available over the counter. My initial design came from its utility in the emergency department. We are starting more on the B2B side of our business because we understand that people may not be aware that the NasaClip solution exists if they are a consumer. If it is used in the emergency department and they are sent home with it or there is a school nurse or sports trainer that uses it, then that helps us to bring awareness from a trusted medical professional to the laypeople, that this is a solution that works that they can use at home.

Once we build our reputation as the go-to solution for nosebleed rescue on the B2B side of our business, we will then more easily step into the consumer market.

CEOCFO: *How are you reaching out to the medical community, and is it a problem for school nurses to use it since it goes in the nose?*

Dr. Clayborne: There are a handful of school nurses who told me they had protocols where they cannot put anything inside any part of the body. The majority of school nurses were using clips and inserts. This is a medical-grade sponge that does not have medication on it, so nurses tend to not medicate it if they do not have a protocol or specific permission to put a medicine on it for a particular student. The response from the school nurses in general has been outstanding.

The way we have been getting the word out is I have attended quite a few conferences this year. I kicked off our debut of NasaClip back in late June at the National Association of School Nurses conference. We had over 300 nurses stop by our booth and they thought the device was amazing. Currently, most school nurses are just sitting there pinching a kid's nose, which is time-consuming for them. Additionally, a lot of them are understaffed and have a lot of students to take care of, so they love something that frees up their hands and gives effective nosebleed rescue so that they can get their student back to class.

I have done other conferences for trainers and wrestling coaches, and then I did most recently some medical conferences including the American College of Emergency Physicians, where I got feedback from my physician colleagues. We were thrilled that in the exhibit hall, many of the physicians who stopped by our booth thought NasaClip was brilliant. They loved it and they could not wait to get it in their ERs. They saw the utility of having something that could immediately start nosebleed treatment when a patient checks in and get them out the door quickly and satisfied with their care-- with a NasaClip to take home so that they do not bounce back to the ER. This allows the patient to manage their nosebleed at home if it recurs.

CEOCFO: *How quickly can you ramp up should this take off someday?*

Dr. Clayborne: The ability to scale is super important. We are in conversations with some potential cruise lines and larger customers that might place very large orders and we will be able to scale quickly. I have the utility of being able to bulk order some of the components that are coming from overseas and then store them in our facility in Baltimore.

Because the state of Maryland is very interested in investing in both manufacturing and the biotech industry, there are a lot of incentives and programs to build out product lines and offset some of the costs associated with scaling up the production of the device. We are primed and ready to do that. We do not want to overdo it with too much inventory initially, but we can scale quickly when we need to.

CEOCFO: *Are you looking for funding, partnerships, and investments?*

Dr. Clayborne: I am. It is a challenging fundraising climate with the economy, interest rates and fallout after the Silicon Valley bank failure. I found that fundraising has been particularly difficult, especially for me as a Black woman it is very difficult. There is still only about 2% of Venture Capital (VC) going to women, just above 1% going to Blacks. I am in the middle of a \$4 million raise and have elected to do a rolling close, so we closing on about \$2 million of that. I have another \$2 million that I need to raise.

I think that NasaClip is a no-brainer investment, as it has a large market and clear revenue path. Our technology is simple and easy to understand, most people easily see why it works and get excited about the product quickly. I have a strong team that I have built around me and we are primed to make NasaClip a success. I am always looking for new opportunities, angel investors, and institutional money that want to support the NasaClip journey.

CEOCFO: *Why do you think it is important to let people know you are a black and women-owned company?*

Dr. Clayborne: There is still a dearth of successful businesses that are owned and led by women and people of color. It also goes back to that lack of funding, there is a lack of opportunity for businesses that are founded and operated by women and people of color and it makes it harder for us to get into the market and be successful. Part of my journey with NasaClip is not only to bring this solution to market but to serve as an example of Black excellence. I want to show what someone who is a single working mom can do, what someone who is a Black physician can do, and that example can open the eyes of investors of why we are a great opportunity for investment. It also encourages the consumer population to support businesses like mine because it inspires other women and people of color to go after their dreams the way I have.

CEOCFO: *What if anything might a potential user or investor miss or not understand about the importance of NasaClip?*

Dr. Clayborne: I think that what has been difficult for investors to grasp is our go-to-market plan and why we have a strong strategy for building revenue with NasaClip. Sometimes investors get scared when you have so many verticals or channels you can go after because it is a good opportunity but if you are not focused in the beginning, it can be dangerous. I mentioned we have interest in school nurses, as well as sports trainers, clinics, people on blood thinners, people that have allergies, cancer patients, pregnant patients, children, daycares, airlines, and cruise ships; there are so many places we want to be. I think investors get scared that we do not have a methodical thought-out beachhead or entry to the market.

I like to emphasize it is exciting that the market for treating nosebleeds is so big but I am thoughtful about how we are going to make NasaClip successful with the focus on the B2B market first. Using my expertise as a physician, we are focused on getting NasaClip first into medical facilities. The practitioners using it will see the effectiveness and be able to evangelize the device and spread the word to consumers and other channels.

CEOCFO: *Final thoughts?*

Dr. Clayborne: I'd like to add that I am also a mother with a three and a five-year-old daughter. I understand how scary it can be if you have a kid who is having a nosebleed or if you are an older adult who is on blood thinners who is bleeding. I do not want people to think as emergency physicians we belittle these problems, I just want to make sure that I enable people to have the tools they need to stop bleeding fast so that they do not have to seek out medical attention. I am happy that I am providing the solution needed for anyone anywhere to stop nosebleeds fast, NasaClip it!