



**It is a privilege to serve the patients in our community, who rely on the life-saving gift of blood and platelets to fight cancer, heal from traumatic injury and undergo major surgeries. With that privilege, comes the tremendous responsibility to meet the daily needs our local hospitals and patients, by providing the safest and most reliable supply of blood products available.**

## **Background**

SunCoast Blood Bank (SCBB) is an independent, 501 (c) (3) not-for-profit organization. Our mission is to provide a reliable supply of the highest quality blood products and services, to health-care facilities in need. On average, SCBB must collect 40,000 units of blood products, which includes almost 6,000 units of platelets each year. In addition to blood products, SCBB provides a wide range of blood services and medically-ordered therapeutic blood procedures to outpatients and inpatients throughout the region.

### **A Distinguished History: 70 Years of Providing Blood**

On February 14, 2019 SunCoast celebrated 70 years of service. O.K. Fike and Dr. Millard White founded the Lower West Coast Blood Bank, now known as SunCoast Blood Bank, in February 1949. They planted the seeds of a humanitarian idea that would blossom over six decades. Although the name has changed, the guiding principles of remaining an independent, local, health-care provider, governed by a local board and local management has remained intact. For more than 70 years, tens of thousands of dedicated volunteers have provided the critical, life-saving gift of blood to our local hospitals and patients. In 1949 the Blood Bank collected 551 pints of blood, now called "units." Today, SCBB operates four donor centers, and more than 1,300 blood drives are held annually in our community. The success of this organization rests completely on the generosity of volunteer donors.

### **Highest Safety Standards**

While reliance upon donations has not changed, the technology involved with blood banking has experienced incredible transformation. Safety of the blood supply has evolved to unprecedented levels. Strict federal regulations assure that blood products maintain the highest quality. That means a thorough screening of donors, extensive testing of each unit donated, and numerous other mandatory compliance checks. SCBB operates within full compliance of the U.S. Food and Drug Administration (FDA), consistently earns accreditation by the Association of American Blood Banks, and maintains membership in America's Blood Centers. Our blood supply has never been safer. Through inventory management software that evaluates the use and effectiveness of transfusion therapy. SCBB was the first blood bank in the country to implement pathogen reduction. This revolutionary technology significantly reduces the risk of transfusion-transmitted infections such as hepatitis B and C, HIV, West Nile virus, Zika and bacteria, as well as emerging pathogens such as Chikungunya, malaria, Ebola, and dengue. Platelets contaminated with bacteria remain one of the highest causes of transfusion-related mortality, and Pathogen Reduction will become an added layer of protection for transfused platelets and improve patient outcomes within the community.

### **Technological Advances**

Changes in technology have resulted in new instruments that improve blood collection. Today, donors can give specific components of blood, utilizing instruments that are calibrated to each donor's physical make-up. This technology, called apheresis (a fur e sis), is an automated system that resembles a small centrifuge that collects and separates the blood while the donation is taking place. Apheresis allows donors to give additional blood products, reduces the time it takes to donate, increases comfort for the donor and results in fewer, if any, side effects. It allows SCBB to provide its hospitals with more consistent and safer blood components while affording donors a more comfortable experience. Most importantly, apheresis allows donors to donate twice as much blood, half as often – something no one could have envisioned when blood banking first began. Many of these technological changes have been integrated into the traditional symbol of blood donation – the bloodmobile. SCBB operates nine bloodmobiles, including one specifically equipped to collect platelets. SCBB bloodmobiles are outfitted with the same, state-of-art collection instruments as the donor centers. More than sixty percent of the blood collected in our community, is collected at mobile blood drives.

### **The Next Generation**

While the blood supply is the safest it has ever been, blood banks face a serious challenge - how to address the ever shrinking pool of eligible donors. This pool is dwindling at a staggering rate, while population and demand continues to grow. Only 38 percent of the US population is eligible to donate blood, and that percentage is likely to drop even more. Of those eligible to donate, less than 5% donate blood, and 1% donate platelets. The population of eligible blood donors is reduced, based on exclusions due to high-risk behaviors for transmitting infectious diseases, travel to areas with specific disease exposures, presence of chronic diseases, use of medications, and aging. The dramatic impact of these exclusions is intensified by the loss of the WWII generation. This "Greatest Generation," those who established blood banks in the 1940's, believed wholeheartedly in donating blood as a civic and patriotic duty. "Baby Boomers" are rapidly approaching the age at which they will require blood products, and their successors, the "Gen Xers," do not give as often as their parents and grandparents. New technologies cannot fully compensate for the diminishing numbers of donors. Cultivating the next generation of blood donors is the new challenge facing blood banks. A great portion of the responsibility now falls to our youngest donors. The legal age to donate is 16, and almost 25% of the local blood supply now comes from high school and college donors.

### **Working Together to Save Lives**

Technological advances are quickly changing the landscape in blood banking. For example, research is currently being conducted to create artificial blood to be used as a temporary substitute until real blood can be transfused. Further out, it is likely that individuals will be able to have their own blood cloned for future use. Other research is directed toward converting blood types on hand (i.e., converting A or B blood to type O) to meet the specific blood type needs and thus preventing blood shortages. While these new technologies may help to stabilize the response to the ebb and flow of demand, there is no true substitute for human blood.