

Our Amazing Blood

Carol: I went to give blood today. I am always happy to do it because I know that it will help somebody who needs it.

Tammy: I've always felt a little "sick" when I did that. How did it go?

Carol: Just fine. But, you know, as I was sitting there watching the blood collect, I was reminded once again how marvelous our body is. That we can give a pint of blood and be just fine.

Tammy: You're right! And our body just makes more to replace it. But be sure and drink good amount of water to give it a helping hand.

Carol: Hello! Welcome to Women of Hope.

Tammy: Hi. I'm Tammy. Carol and I are so glad to be with you again today.

Carol: Tammy and I are talking about our blood. It's a fascinating subject! How much blood do you think we have in our bodies? I was surprised to find out that the average adult has 7 liters of blood. That's a lot!

Tammy: We all know it's serious to lose a lot of blood. But let's talk about why blood is so important.

There are 5 main things that blood does.

First, it carries oxygen that every cell needs to stay alive.

Carol: Second, when we're cut, it clots to stop us losing too much blood.

Tammy: Third, it works like a delivery system, to carry the nutrients, salts and other chemicals to every cell in our body. Have you ever tasted your blood, like when you cut your finger and suck on it? It tastes salty! That's because there's a very careful balance of different types of salts and chemicals in your body.

Carol: Next, blood carries hormones or messages from one part of the body to another, to stimulate every organ to do its own special job.

Tammy: And lastly, there are white blood cells and antibodies in your body that help fight infections. They travel around in your blood to where bacteria have gotten in, and try to destroy them.

Carol: Blood flows around your body in soft tubes, called veins and arteries. You can see some of the veins under the skin, on your arms or legs. Veins carry blood from parts of the body back to the heart. Then the heart pumps the blood into the lungs, where it picks up oxygen from the air we breathe. This bright red "oxygenated" blood flows back into the heart, which pumps it all around the body through the arteries. All the tiny cells of our body need oxygen to live and work.

The oxygen is carried by special cells, the red blood cells. The red blood cells contain hemoglobin, made with iron; this is the bit that holds onto the oxygen.

Tammy: It always amazes me how God made our bodies so beautifully balanced. The more I learn about our bodies, the more I realize what a wonderful designer God is.

Carol: Yes! Isn't it amazing how the body seems to mend itself when you have a cut? Otherwise all your blood would run out.

When you cut yourself, after a little while you can see a clot form, a little dark clump of blood. This clot is formed by other particles in the blood called platelets and clotting

factors. They work together to plug up holes where blood can leak out. A bruise is bleeding under your skin that clots. Sometimes you can have problems with clotting too much or with bleeding too much.

Tammy: A small cut will close up by itself, as the clot forms. But I'm sure you know that we stop bleeding by using pressure. A good way is to take a clean piece of gauze or cloth and hold it firmly over the cut. You can use a bandage to hold it firmly in place. If it bleeds through the cloth, just put more cloth over the top. If you pull off the first cloth, it will pull off any clot that is forming. Later, when it has really stopped bleeding, you can gently soak off the old clot with cool boiled water, and put on a fresh clean dressing. If the cut is on an arm or leg, you can hold up the limb and that will slow down the flow of blood. And putting ice over the cut will slow down the blood flow too.

Carol: When I gave blood today, I wondered how much blood you can lose without dying. Women usually lose between a quarter and half a cup of blood each time they have a period, and that's not a problem. A healthy adult can lose up to a liter, and make it all up again. But if they lose more than a liter, or they are already weak, they are likely to be very sick and they could die. So clotting is very important!

Tammy and I have been talking about our blood. Have you ever heard of anemia? If you don't have enough red blood cells, or they don't have enough hemoglobin containing iron, you have anemia. If you don't have enough iron in your body, your red blood cells look small and pale under a microscope.

Tammy: I've heard about anemia - it can make you feel tired and breathless, because the red blood cells can't carry enough oxygen, and all your cells can't work properly. If a person has anemia, the skin inside their bottom eyelid looks pale, not bright pink.

Carol: Did you know that women and teenage girls need more iron than men do? That's because we lose some each month, and need to make more hemoglobin. We need extra iron and vitamins when we're pregnant, too. That's another reason why girls need good food, just as much as boys do.

Tammy: What about people who donate blood, like Carol did, for blood transfusions? That's a wonderful thing to do, it saves lives, but does that make them weak and anemic? No: healthy people can safely give blood donations every two months. They can easily make that much new blood, if they have good food. But different countries have different rules about how often you can donate blood. By the way, if you give or receive blood transfusions, always go to a proper clinic or hospital where they use sterile equipment. And make sure you get the right blood for you; there are different types of blood and you can't mix them.

Carol: We said that we need iron to make healthy red blood cells. So where do we get that iron? We can't chew pieces of iron! No, but substances containing iron are found in many foods.

Tammy: That's right! Red meat has lots of iron. Eggs, fish and poultry are good sources. Iron from animals is the easiest to absorb, but there are good plant sources too, such as peanuts and dried beans and peas, especially soybeans. If you eat whole grains, without removing the bran, that also gives you some iron.

Carol: Don't forget green, leafy vegetables like spinach, bok choy and broccoli! They have iron as well, and also they help us to absorb iron from other sources. So a small amount of meat in the same meal with green leaves will give you up to three times as

much iron as just eating the meat. Oh and dried fruits like apricots and prunes . . . they are good too.

And you know, we need Vitamin C to help us absorb and use iron. Fortunately many of those green leafy vegetables have good amounts of Vitamin C. So do citrus fruits, and most brightly colored fruits and vegetables, especially if you eat them raw.

Tammy: Ok, so a good varied diet with fresh fruit and vegetables, whole grains, and maybe some meat, eggs or fish, should give you enough iron for healthy blood. That's the ideal sort of diet we should be eating anyway.

I found out something else - drinking tea or coffee with your meal stops you absorbing all the iron. So if you think you might be short of iron, don't drink tea and coffee at meal times.

Carol: Well, since I had my meal a while ago, I'm going to enjoy my cup of tea right now.!

Tammy: Our friend Naomi is here with us again. We've been enjoying her stories - have you heard some of them? Naomi and her family worked in Nepal for many years and today she's going to tell us about two special people that she met there. Welcome, Naomi!

Naomi: Thanks Tammy, and hello to you. Yes, I thought I'd tell you about Mukti first. Mukti was twenty years old. He came from a village two hours' walk to the north of the hospital at Pokhara where we worked. One day he was carrying a long steel pole and he ran into some electrical wires and got severe electrical burns. Friends brought him to the hospital where he had both arms amputated below his elbows. He still had a major burn on his buttocks. He was losing blood quickly and would soon die without a blood transfusion. A healthy person with the same type of blood needed to give some blood, which would be put into Mukti's veins.

Mukti had no relatives with him. The friend who came with him to the hospital was afraid to give his blood. My husband Darren found Mukti's friend and sat with him for a long time talking to him. Why didn't he want to help his friend?

It was a long story. The friend explained that most of his people refuse to give blood. They believe that if they give blood they lose some of their own spirit. The risk was too great for the friend.

Darren explained that his friend could die very soon. Then he had an idea, "Will you give blood if I come with you? I'll sit beside you and give blood too." The friend still didn't want to give blood, but agreed to walk to the pathology room with Darren.

When they got there Darren asked the nurse to take his blood first. Mukti's friend watched Darren very closely as the bright red blood came out of his arm into the syringe. He couldn't see any departing spirits or sickness in Darren. The blood kept filling the syringe and Darren was still looking normal. There were no spirits to be seen. Mukti's friend watched for a few more minutes and then agreed to give some blood for his friend. Just in time to save Mukti's life.

Mukti gradually got better. Weeks later he asked Darren where the blood he had been given came from. Darren told him that his friend had given some blood. Mukti was shocked. He said, "Really? He would never do that! He would be too scared. He did that for me?"

Darren said, "He did give blood. He saved your life. I also gave blood."

Mukti stared at Darren. "You gave me blood? You didn't even know me!"

"That's true. But there is one thing even more amazing than that. You have received blood from us and your life has been saved. Your name, Mukti, means salvation in Nepali. You have been saved for a purpose. But the one who really saved you is Jesus. He is God's son who came to earth to show people what God is like. When Jesus died on the cross, his blood saved your life. He saved you so that if you believe in what he did, you can live forever, even after your life runs out here on earth."

Mukti had never heard of such a person as Jesus. He wanted to know more about him. He wanted to know why Jesus loved him. He wanted to know how he could learn about that love himself. Mukti prayed to Jesus while lying on that hospital bed.

He had no hands, but he had new life.

The last time we heard about Mukti, he had gone back to village and had started a group of people who were following Jesus.

Tammy: That's a great story Naomi. And blood made all the difference to Mukti!

Naomi: There was another patient that was special to me. Maili was thirty-five years old, a lady who lived in a village many days travel west of Pokhara. Her husband liked to drink too much rice wine. Maili's three daughters were born very close together and her husband was not happy. In Nepali culture, he needed a son to perform his funeral rites when he died. He threatened Maili that he would find another wife if she did not bear him a son. One day, Maili felt so sad that she set herself on fire. Her body had serious burns all over. But she was still alive.

Darren met Maili at the hospital after she had been there for several days. She did not have long to live. The doctors gave her medicine to take away the pain as they waited for her to die. On this day, Guru Amma, a Nepali Christian lady came to visit the hospital. She would visit patients and talk with them. Guru Amma was a small lady over 80 years old. Darren told Guru Amma to go and talk to Maili.

Guru Amma went and sat quietly by Maili's bed. As soon as Maili saw Guru Amma she became excited. She started to tell an amazing story.

"Last night I had a dream" Maili said. "I dreamed I was walking along a high path going up the mountain. It was a thin path I didn't recognize. I was carrying a heavy bag full of all my possessions. It weighed me down and I couldn't keep walking. So I stopped at a crossroads in the path and sat down on a rock. I looked at the paths ahead and there were only two. One path went up over the cliffs; the other went down. I had no idea which way to go, so I sat and waited. As I waited a lady came to speak with me. She was small and had grey hair tied up in a knot. She sat down near me and asked me which way I wanted to go. She asked me whether I wanted to go up or down. I didn't know. I couldn't answer her question. And then while I was still deciding which way to go, I woke up. I didn't know what the dream meant. Then this morning you came to my bed and I know you are the lady in my dream. I know that it was you."

Guru Amma smiled at her, "My dear girl, I could ask you that same question. Jesus is the way to God. He loves you. He wants to know which way you will go. He will take you on the path that leads to life. He will carry your worries for you. He will give you peace. That's what he came to this world for. He came for you."

Maili had never heard of Jesus before. She asked to hear more. That morning Maili chose to follow Jesus. She died the next day. She died in peace. Her worries were gone.

Before she died, Maili begged, "Please tell my mother and all my family and everyone I know about Jesus. They don't know about him."

We were sad that Maili had such a difficult life, and suffered so much. But we couldn't help feeling glad that she had the chance to learn about Jesus and find peace with God. And we saw again how God had prepared her to hear his message, and sent the right person to tell her. God reached out to her in his great love.

Carol: And he reaches out to you too, my friend. I hope that your heart is open to receive his love today. Which path do you think you would take?

Tammy: Did you wonder what Darren meant when he told Mukti that Jesus' blood saved his life? Of course Mukti didn't get a blood transfusion from Jesus. Darren meant that when Jesus shed his blood, when he was crucified, he was giving his life. But how did that help Mukti? And how can it help you? Let us explain.

Carol: Jesus was one with God his Father, yet he came to this world as a man. He was completely pure and holy, so he could not be punished for doing anything bad. But Mukti, and you, and I, have done plenty of wrong things. We deserve to be separated from God who is perfectly holy. Yet God loved us and wanted us to be close to him. So Jesus came and died instead of us. He was separated from God his Father, so that we could be close to him. We can be friends with God now, and when we die, we can go to heaven to be with God forever.

Tammy: Then Jesus came alive again. That showed that God his Father was completely satisfied that Jesus had taken the sins of the whole world. Jesus' blood paid for all our sins, and that's how we can be saved, when we say 'sorry' for those sins and 'thank you' for taking our place. That's how we become followers of Jesus.

Carol: So it's no wonder we think the blood of Jesus is so special. When Jesus gave up his life, he gave us life that lasts forever.

We had a good time today with Naomi and we learned a lot about blood. If you have any questions or want to share something about your life with us you can write to us in care of this station or at Women of Hope.... **The address: Womenofhope@twr.org.**

Tammy: If you have missed a program or would even like to hear one again you can do that on our **website twrwomenofhope.org** or by visiting us on our Facebook page.

Carol: We pray that God will bless you and help you every day, and that you will be close to him.

Tammy: Have a great week filled with God's blessings.