

CREATOR

VOLUME 9

NUMBER 3

*I Am Fearfully and
Wonderfully Made*

HEAT PRODUCTION YEAR 'ROUND

A CHILL IN THE AIR

*Do not withhold Your mercy from me, O LORD;
may Your love and Your truth always protect me.*
Psalm 40:11

The Lord Jesus Christ created you as a **warm-blooded** being. This means that your body produces heat and you're able to maintain a relatively constant temperature automatically. Some animals, like fish, reptiles, and insects, are unable to stay warm on their own and are termed **cold-blooded**. In a heated environment, cold-blooded animals will become as warm as their surroundings. Under cool conditions, however, they lose body heat and their blood truly does become cold.

WINTER'S A-COMIN'

WHAT KEEPS US WARM?

Peeking out your bedroom window early one Saturday morning, you find your world invaded by white fluff falling from the sky. As you place your warm hand gently against the icy glass, the sting of cold triggers a shiver down your spine. This sounds a retreat to the warmth of your room. *Winter's a-comin'*. But, in spite of the cold, you are anxious to get dressed and venture outside. "I wonder what it's like out there?" you ponder while slipping on heavy woolen socks. "Will I need extra clothes? Will I be warm enough once I'm outdoors?" Protecting yourself from the cold is an important but simple job. God has already done the complicated work of preparing your body *on the inside* for the rigors of winter.

Similar to a home, your body has a furnace inside. Actually, it contains many "furnaces." Organs, such as the liver, heart and skeletal





muscles, produce great amounts of heat energy. (The liver is the hottest place in your body.) The amount of heat you produce varies somewhat throughout the day and night. While you sleep, your temperature drops slightly and is lowest early in the morning before you awake, as low as 95-96° F (35° C). During the day your temperature may vary from 97° F to 99° F (36 to 37° C).

Despite this minor variation, the temperature of your body remains the same almost all the time. How does Christ Jesus maintain such a stable temperature? The answer is found at the base of your brain, in a part of your nervous system called the **hypothalamus** (high - po - THAL - ah - miss). The hypothalamus serves as a thermostat of sorts, much like the thermostat of a house or apartment. The temperature of blood is measured as it flows through your brain. Special chemicals called **hormones** are then released from your thyroid and adrenal glands in order to maintain normal body heat. It is the hypothalamus that signals their release. These hormones, in turn, direct the cells of your body to increase or decrease the amount of heat they produce, depending on the need, and keep your temperature constant.

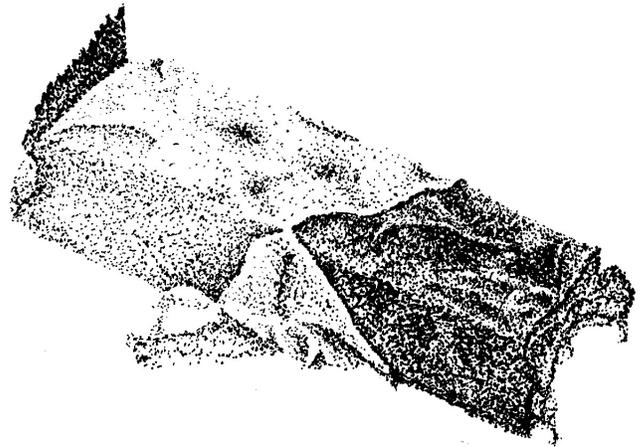
During an illness, such as the flu,¹ another class of chemicals are produced called **pyrogens** (PIE - row - gins) which increase the thermostat setting of the hypothalamus. As a result, shivering occurs, increasing heat production and creating an elevated temperature or **fever**. No one really knows why God allows fevers, but doctors

believe that an above-normal temperature may help fight off an infection. Certain medications (such as aspirin) can be given to a patient to block the effects of pyrogens on the hypothalamus and thus help lower body temperature.

GOD'S ANSWER TO COLD

When exposed to cold, your body responds with short-term and long-term solutions. Let's say you decide to go to a high school football game one cool evening in November. Clad in a thin jacket, you feel quite cold 20 minutes after arriving. How does your body handle the chill if you don't have extra clothes to put on? Well, your hypothalamus tells your **adrenal glands** to pump out extra **adrenaline**.² Adrenaline, in turn, causes the tissues of your body to increase heat generation. At the same time you start to shiver. Shivering is the rapid, involuntary movement of the muscles all over your body. This, too, is controlled by the hypothalamus. Increased muscle action causes additional heat production, helping you to stay warm.

The hypothalamus also commands your circulatory system to reduce blood flow to your



arms and legs. This helps to prevent heat loss from your body, but does make your fingers and toes feel cold.

You could further improve your chilly

¹ influenza

² Epinephrine is another name for adrenaline.

predicament by drinking something warm and sweet, like hot cider or, in the case of adults, a hot cup of coffee with sugar added. A candy bar also works well. **Sugar** is a great source of energy and is quickly converted into extra heat. With hot drinks, it is the sugar, as well as any caffeine present, which causes you to feel warmer, not the hot liquids themselves!

If all else fails and you're still unwilling to go home and put on more clothes, you might try jumping or dancing around in place for a while. Like shivering, increasing your muscle activity produces additional heat.

LET'S KEEP WARM

Long-term solutions for keeping warm are the same for any of us facing inclement weather. The most obvious is proper clothing. Layered clothing is recommended because this provides several "blankets" of warmth with pockets of insulating air in-between. This is similar in principle to double- and triple-pane windows. What about the parts of your body, like your face, that are left exposed? Well, the Lord Jesus covers them with a very thin wrapping of warm air to further insulate you from the cool night. This invisible blanket of air lies next to your skin and is about one-third of an inch (eight millimeters) thick, though it can become much thinner if a breeze is present.

Besides clothing, proper eating habits will help us remain toasty in fall and winter. As we eat and digest food, we produce heat. Our body also converts food into chemical energy which is stored in our liver and muscles, and as fat for later use. Although fat has a bad reputation, it acts as an excellent barrier against the cold, much like attic insulation in a house. Maybe it's no accident that adults over 30 frequently gain weight in the form of fat in fall and winter. Conversely, extremely thin people often have more difficulty maintaining warmth than people with normal or excess body fat.

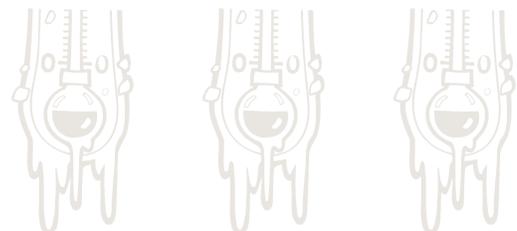
Exposure to cold over a long period of time causes the body to increase its output of **thyroid hormone**. Like an accelerator in a car, thyroid

hormone can rev up the "engine" of the body's heat production. After several weeks, our bodies are better tuned to utilize energy from food and stored fat. As a result, our tolerance for cold temperatures seems to be greater at the end of winter than at the beginning.



OUR WONDERFUL CREATOR

You're back home now, holding a cup of hot chocolate and watching the steam gently drift upwards. A feeling of rejuvenation overtakes you as you enjoy the taste of rich cocoa in your mouth. "What a great Designer we have," you think, as you reflect on your encounter with changing weather. You've come to recognize that Christ placed within you a thermostat and many furnaces to keep you warm and safe. You used common sense today by dressing in warm clothes and by eating well, but you also now realize that *your* job is really quite simple. The Lord has taken care of most of the tough stuff. His tremendous love for you and His attention to detail has led you to appreciate Him all the more!



THROUGH THE EYES OF A CHILD

Billy rushed out of the house to see the season's first snowfall. His eyes glistened and his mind filled with amazement at the beauty of a neighborhood now covered in white. Just the night before he had gone to bed hoping the next day would be a good one, but he never expected to wake up to such a wonderful surprise.

Billy's father, Bud, soon stepped out into Christ's wintry world, dragging behind him a well-used shovel. Bud, an architect, was much less enthusiastic about the blanket of snow that had been deposited the night before. His thoughts were on an important meeting scheduled for today in another city. He was booked on a morning flight, and he hoped the nocturnal deposit of snow would not delay his travels. *He failed to see God's beauty in his midst.*

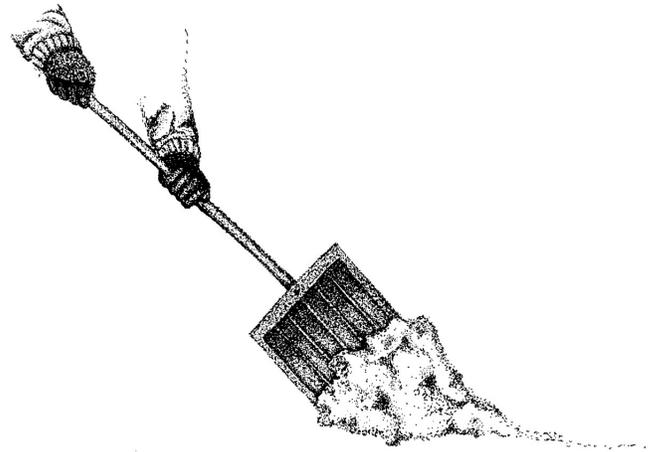
Bending down close to the ground, Billy was delighted that his first attempt at making a



snowball was successful. The snow was perfect—moist and easy to pack! He could see that his day was going to be chockfull of snow-men and snow forts. Soon other neighborhood kids came rushing

out of their homes joining Billy in the excitement. The ensuing hours of joyous play seemed to the energetic youngsters like minutes on a fast-moving clock.

The shovel scraped along the driveway as Bud made a pass at the snow. It was heavy, and

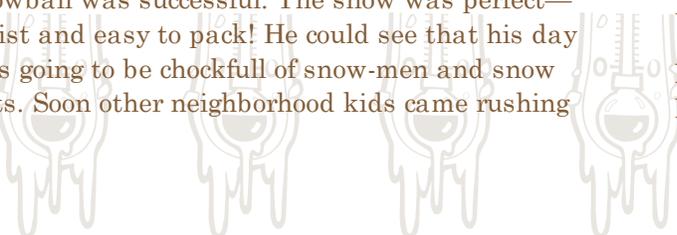


he knew it was going to take time to clear a path for his car. This made Bud anxious! When the task was finished, his drive to the airport was no less calming. Exhaust filled the chilled morning air, forming an eerie cloud of moisture that hung like a chandelier near the ground.

The traffic crawled along at a snail's pace, and Bud's rush was in vain, because his flight was delayed an hour and a half. Irritated, he thought to himself, "With all our technology, you'd think we could have planes that were on time."

Meanwhile, three successful snow battles had been waged, with two newly-formed snowmen keeping sentry. The trips down the neighborhood hill with plastic sleds, cardboard, and any other flat object that could be found were too numerous to count. Billy and his friends spent hours enjoying the Heavenly Father's frozen creation, oblivious to the fact that their feet were cold and tingly. Their time in the snow had been too rewarding to be curtailed by this discomfort, which they simply chose to ignore. Only a short break for lunch interrupted their fun. All too soon it was dark, however, and one by one the children left the winter wonderland for their homes.

Bud's return from the airport was no less hectic than his morning trip had been. Once home, he had difficulty expressing anything

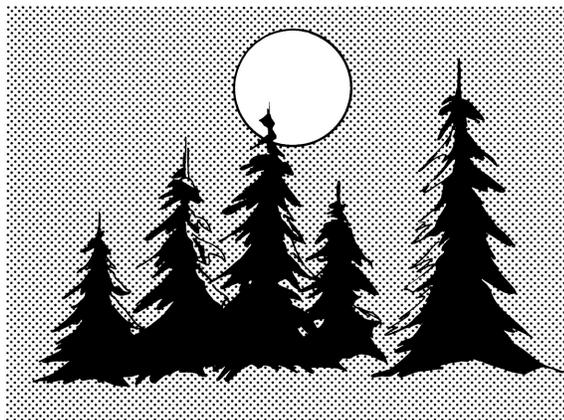


positive about his day's duty. His accomplishments at the meeting today were overshadowed by his frustration at the snow's bold alteration of his plans.

"Maybe we could move to a place where it's warm all year," Bud blurted out as he sat down to the dinner table with the rest of the family. His wife gave him a patient, knowing smile—as if to say, "I understand," without speaking a word.

Bud was uncharacteristically quiet at dinner that evening, but Billy was full of non-stop information about the activities of the day. Billy was eager to have his father see the snow fort he and his friends had made. "How 'bout we do that some other time, Billy? I'm really bushed," Bud responded. Bud felt the gentle touch of his wife's hand on his shoulder. "Honey," she began, "Billy really did work *awfully hard* on that fort. Besides, you need to relax, and a little fresh air might do you some good."

Bud reluctantly agreed to his son's request. After clearing the table together, they headed outside to inspect the local citadel. The sun had long since retired for the evening; Bud was surprised that he could see so well. The moon was full and bright in a cloudless sky, and lunar



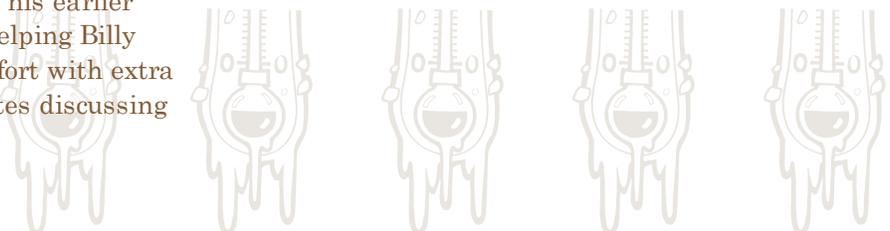
light illuminated the frozen landscape.

Billy used a flashlight to show his dad the finer details of the fortress' architectural design. Soon Bud forgot the frustration of his earlier encounter with winter and was helping Billy stabilize a weakened wall of the fort with extra snow. The two spent many minutes discussing

the merits of the fort's layout and planning how a bigger, better one might be built the next time. Smiling at his son, Bud recognized the familiar feeling of satisfaction and joy in achieving a well-constructed design, a joy that had been choked by the day's frustration and worry. As he lifted his eyes to the silent scene surrounding him, Bud was struck by the serenity of it all and how it spoke of the Prince of Peace. A new appreciation for the glittering snow welled up within him as his anxieties melted away.

Billy and Bud spent the remainder of the evening together walking through the woods behind their home. They savored the images of snow gently draped over tree branches while moonlight danced over the white surface. At times they would walk without saying a word, listening to the crunch of the snow beneath their boots. Grinning, Bud remembered the multi-ton airplane stopped dead in its tracks by an invincible army of tiny snow-flakes. Deep in thought, Bud realized that these small creations not only reflected God's beauty, but represented His mighty power as well!

A bit later Bud tucked his weary child into bed, listening to Billy's prayers. He offered his usual thanks for family and friends and concluded, "Thank you, Lord Jesus, for sending the snow today." Bud nodded his head in agreement and quietly added, "Yes, Lord, and thank you for helping me to see the wonder of Your creation through my son's eyes." □



THE WARMTH OF THE LORD

We've seen that the Creator has gone to a lot of trouble to keep us warm through His marvelous design of our bodies. Yet the cold weather we experience on earth is temporary. A storm is coming which is infinitely more harsh, *and it is permanent*. Are you prepared? This "eternal winter" will see those who have ignored God, and the truth about His Son, separated forever from God's love and warmth and caring.

We all have doubted Christ's great love for us at some point in our lives. Yet, look what Isaiah the prophet says of Jesus in this regard: "He tends His flock like a shepherd: He gathers the lambs in His arms and carries them close to His heart; He gently leads those that have young" (Isaiah 40:11). In God's eyes we are like sheep and if we let Him, Christ will hold us close in His arms next to the warmth of His heart. To receive the eternal comfort of the Heavenly Father, we must first recognize His love for us in sending His Son, the Lord Jesus Christ, to die for our sins. We must believe in Christ like a child believes in his mother or father. "I tell you the truth, anyone who will not receive the kingdom of God like a little child will never enter it." And He [Jesus] took the children in His arms, put His hands on them and blessed them" (Mark 10:15 & 16).

As adults we spend most of our lives trying to prove our worth to one another through our looks, clothes, job, money, and possessions. Children, however, often own little or nothing. In the same way, we have nothing to give Jesus other than our love and trust in Him.

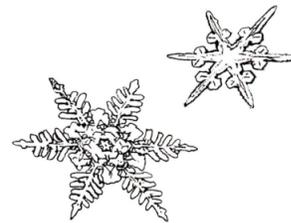
Christ warns us about the time in which we live. Listen to what He said regarding our modern society 2,000 years ago: "Because of the increase of wickedness, the love of most will grow cold..." (Matthew 24:12). Don't be fooled into believing that conditions in the world are going to get better because of technology or politics. Most people's love for one another and for God is dying. Even some who call themselves Christians have been caught in the awful chill of self preoccupation and selfish pursuits.

There is only one way to escape the coming spiritual winter—through God's Son, the Lord

Jesus Christ. The writer of Hebrews stated it this way: "The Son is the radiance of God's glory..." (Hebrews 1:3a). Jesus Himself said, "I am the Way and the Truth and the Life. No one comes to the Father except through Me" (John 14:6).

Have you experienced the cold and harshness of the world? Do you have a chill and an emptiness in your life? You don't have to live like that. You can know and experience God's warmth forever. Receive the truth about God's great love for you and surrender yourself to Jesus Christ, the King of the universe. Christ sacrificed His own life so that you could have *eternal life*. Seriously consider committing yourself to God through His Son, and then receive His gift of eternal warmth and love. Take a moment right now to talk with Him as your Father.

Dear Father, I recognize that I have lived my life independently of You and You consider this sin. Please forgive me through Your Son, Jesus Christ—through His death on the cross. Jesus, please come into my heart right now. I embrace You as my God and my Savior. I receive Your gift of eternal life. Show me how to live the way You want me to live. In the name of the Lord Jesus Christ I pray, Amen.



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