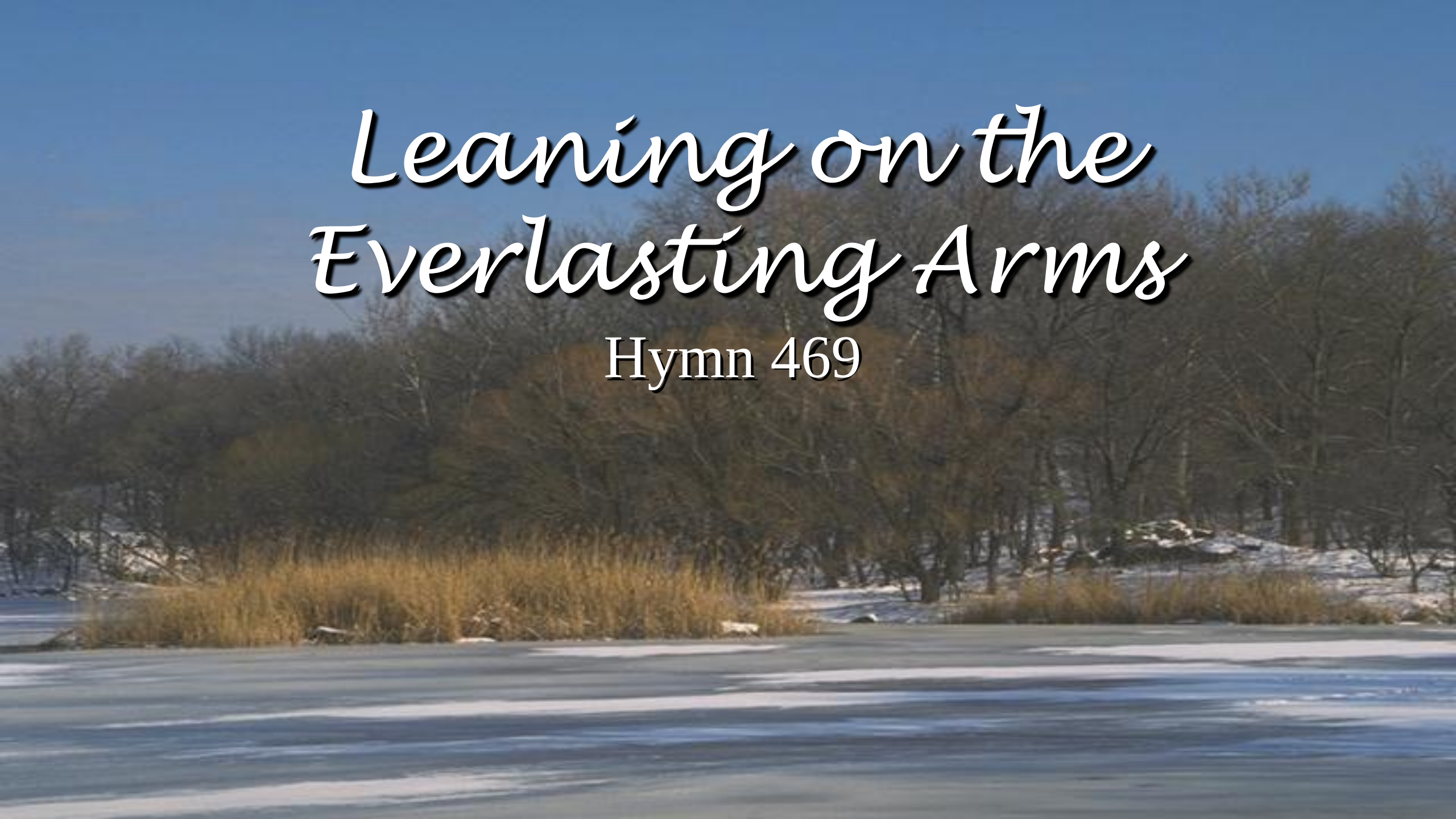

Welcome to
Stanmore Church


WELCOME

Prayer Time


Praise &
worship
Therefore I will praise You, O LORD, among
the nations; I will sing praises to Your name.
2 Samuel 22:50


Leaning on the
Everlasting Arms
Hymn 469

Verse 1/3

What a fellowship what a joy divine
Leaning on the everlasting arms
What a blessedness what a peace is mine
Leaning on the everlasting arms
Leaning, leaning
Safe and secure from all alarms
Leaning, leaning
Leaning on the everlasting arms

Verse 2/3

O how sweet to walk in this pilgrim way
Leaning on the everlasting arms
O how bright the path grows from day to day
Leaning on the everlasting arms
Leaning, leaning
Safe and secure from all alarms
Leaning, leaning
Leaning on the everlasting arms

Verse 3/3

What have I to dread what have I to fear
Leaning on the everlasting arms
I have blessed peace with my Lord so near
Leaning on the everlasting arms
Leaning, leaning
Safe and secure from all alarms
Leaning, leaning
Leaning on the everlasting arms

Leaning on the everlasting arms


Love Comes,
Love Goes
I'm all yours

Love comes, love goes

People, places and time

But the precious love of my Jesus

Is something that just won’t die

CHORUS

It just won't die

It just won't die

Something that just won't die

The precious love of my Jesus

Is something that just won't die

Love comes, love goes

People, places and time

But the precious love of my Jesus

Is something that just won’t die

CHORUS

It just won’t die

It just won’t die

Something that just won’t die

The precious love of my Jesus

Is something that just won’t die

The precious love of my Jesus

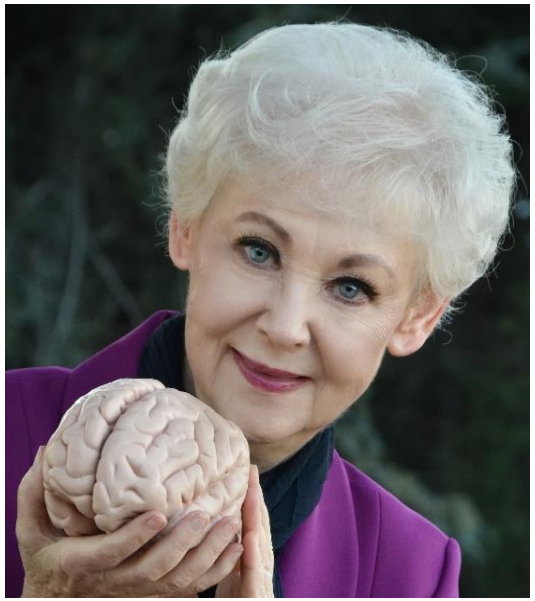
Is something that just won’t die

Dr Arlene Taylor

leading speaker on brain function

Session 1

Sleep is Independently Linked with Longevity



The Power of Sleep—and Deprivation . . .

www.ArleneTaylor.org
Brain References
www.LLM.life

Realizations Inc
Success Resources International
TM
Since 1983

Sleep is independently linked with longevity; without sufficient sleep, you die—the loss of one hour of sleep per night can shorten your life span

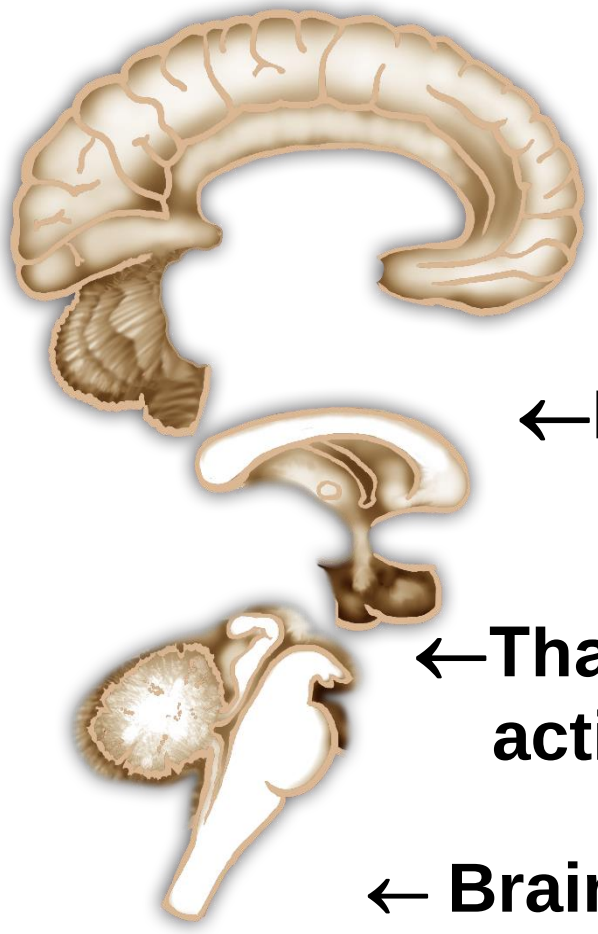
Your brain is actually busier during sleep than it is when awake because it has many housekeeping chores to do

If your sleep is cut short some of those chores will not get done, which will impact you the following day, depending on which ones are neglected

Mental exercise and fatigue takes more recovery time than physical exercise and fatigue

Unlike a coma, sleep is a quiet, partially-conscious, and reversible state from which you can be aroused by stimulation—sometimes with difficulty, because sensitivity to environmental stimuli (sounds, smells, and physical sensations) is lowered but not completely blocked

Sleep is very complicated any way you cut it—you will spend about 1/3 of your life sleeping, which helps you be productive during the remaining 2/3



←Neocortex: RAS stimulation triggers awareness and alertness

←Hypothalamus: Suprachiasmatic Nuclei (SCN) is the master circadian rhythm clock

←Thalamus: “Sleep on” cells can block RAS activation of the cortex and induce sleep

← Brain Stem RAS: stimulates the brain into wakefulness; must be blocked to cause sleep

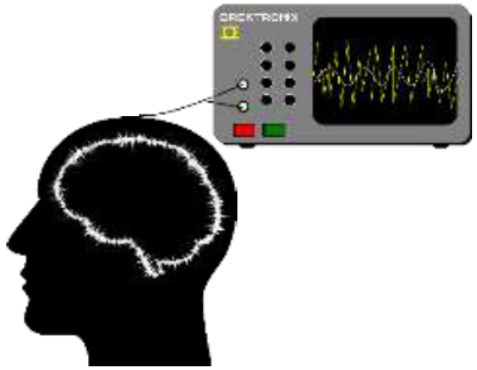
Your brain does not *rest* during sleep, per se—hundreds of biological processes continue and some brain areas are even more active during sleep than when you are awake

Breathing, heart rate, blood pressure, continue as usual—other non-critical functions are suppressed (unless you eat just before going to bed)

Thanks in large part to the invention of the EEG or electroencephalography and polysomnography more has been learned about sleep in the past 60 years than during the preceding 6,000 years —J. Allan Hobson, *Sleep*

The brain generates two distinct types of brain waves that combine to form a sleep cycle:

- ✓ **Most human sleeping is slow-wave (SWS) or non-rapid eye movement (NREM) sleep, characterized by large, slow brain waves, relaxed muscles, and slow deep breathing**



- **Rapid eye movement (REM) sleep or dreaming sleep**

If there is sleep deprivation, the intensity of NREM sleep increases although the time spent in it does not markedly increase

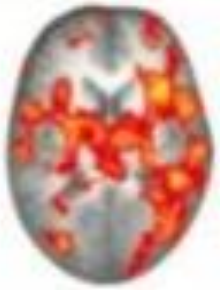
Children age 7 to puberty need at least 8 hours per night

Teenagers need at least 9 hours per night but they often sleep only 7-8 hours or less

Some teenagers develop Delayed Sleep Phase Disorder in which circadian sleep rhythm is pushed back and they are not sleepy until long after their usual bedtime and then cannot awaken early for school—much less "learn"

Adults need 7-8 hours per night (a few more or less)

- **The greater the sleep needed, the faster you fall asleep**
- **Although it accounts for only 2% of total body weight, the brain uses 20% of all the energy resources, three times as much oxygen as body muscles cells, and twice as much energy as other body cells**



- **It has no stores of oxygen or glucose so needs a regular blood supply (glial cells store some glycogen)**
- **Body cells can use carbs, fats, and proteins for energy, brain neurons can only use carbs for glucose—and healthier carbs are, of course, preferred.**

The brain completes a variety of routine maintenance and housekeeping chores that can help you learn more quickly when awake and remember what you learned

1 - Restores brain energy reserves; helps maintain homeostasis including energy balance

2 - Processes what happened during the previous 24 hours through dreaming during the REM stage

3 - Provides the brain with special electrical stimulation to help with learning quickly, memory, decision-making, and cognitive performance when awake

4 - Consolidates information processed during the day and moves it from short-term into long-term memory

5 - Repairs cells in the hippocampus, your brain's search engine, so it can locate stored information and help you recall it

6 - Helps regulate appetite, mood, and libido

7 - Increases blood supply to muscle cells

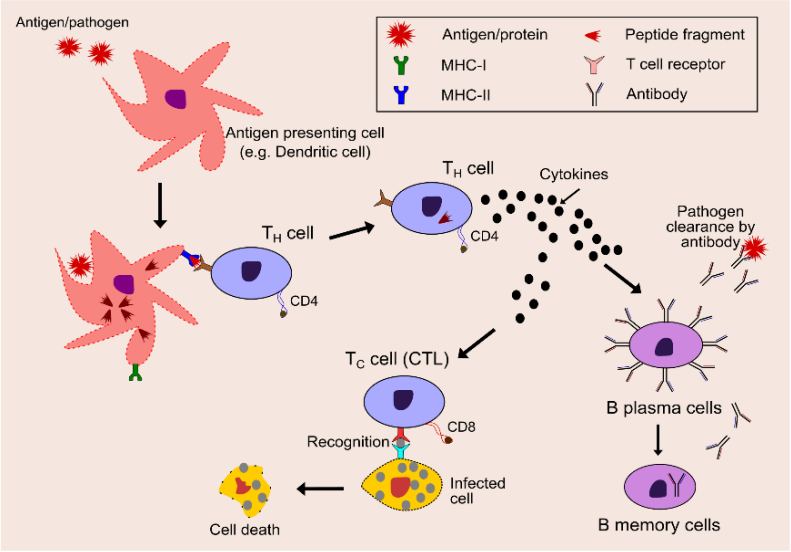
8 - Releases hormones for growth and development

9 - During sleep the brain-body temperature and level of metabolic energy are reduced—the energy saved is used in growing and repairing cells

10 - Synthesizes new chemicals for the brain and immune system

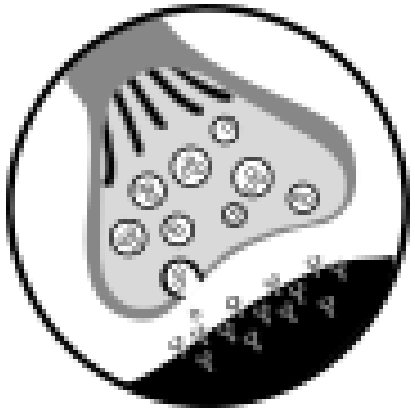
11 - Generates and repairs cells of the immune system

12- Repairs brain cells



13 - Opens up spaces between neurons so glial cells can help flush out toxic molecules including beta-amyloid proteins (the plaques of AD)

14 - Collects (reuptake) norepinephrine and serotonin from the synapse (synaptic gap) so they can be reused

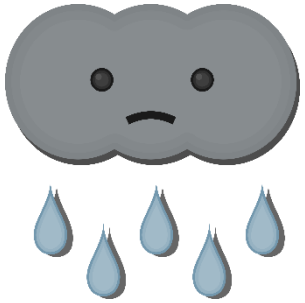


15 - Removes waste products from the brain

16 - Prepares food for the neurons (neurotrophins)

17 - Increases production of oligodendrocyte glial cells that form myelin sheath to wrap neuronal axons

Sleep deprivation is a major risk factor for many mental disorders including anxiety and depression



Interestingly, too little sleep or more than you need are both established risk factors for developing medical disorders such as heart disease, stroke, diabetes, kidney disease, and common infections like flu and pneumonia—the brain works best in homeostasis (balance)

Aging and longevity studies show that the longest lived and healthiest people typically get regular and restful sleep

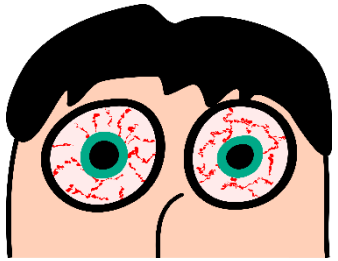
The “free-running” circadian rhythm is approximately 24 hours and a few minutes

It uses solar light cues to keep synchronizing the SCN (circadian rhythm clock in the hypothalamus) back onto the 24-hr sleep cycle; known as *entraining*

Non-24 Hour sleep-wake disorder: visually impaired individuals often develop greater that 24 hour sleep cycles; if the SCN is not cued by light to synchronize the circadian rhythm to the 24-hour light-dark day, it does not *entrain*

The SCN does NOT react well to rapid changes in light and dark (outside of the sun's regular rise and setting)

This produces circadian disruption problems that cause sleep dysfunction, which is often seen in shift work and jet lag



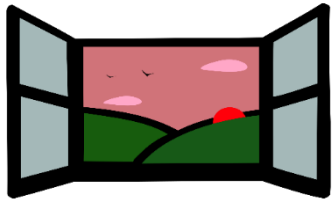
The number of time zones crossed is the factor in jet lag; estimates are that it can take one day for every time zone crossed to have the SCN catch up; E-W or W-E flights are more problematic than N-S or S-N flights

20-40% of Americans do shift work; rotating shifts keep them continually in jet lag

60-70% of shift workers have a sleep disorder; they fall asleep at work 2-5 times as much as daytime workers, and make more errors on the job, often resulting in disastrous consequences

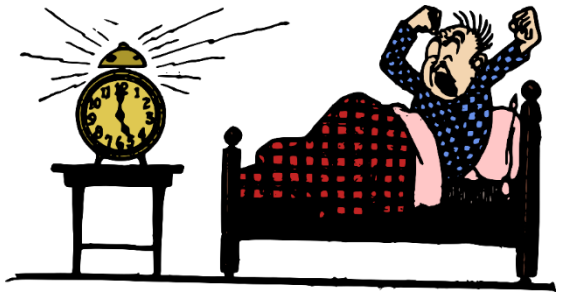
Have higher risk of heart disease, GI disorders, menstrual irregularities, weakened immune systems, certain cancers, emotional problems, divorce, substance abuse, depression, and social relationship problems

Season Affective Disorder (SAD): a type of depression related to circadian rhythms—the incidence is higher in countries with shorter days and less light during winter months (e.g., Alaska, Iceland, Finland, Norway, Denmark, Canada's Northern Territories)



SAD is often linked to high rates of substance abuse and suicide attempts; as days have more sunlight, symptoms often go into remission—symptoms may improve by use of "natural light bulbs" indoors and/or daily exposure to bright light for 30-60- minutes, usually in the morning

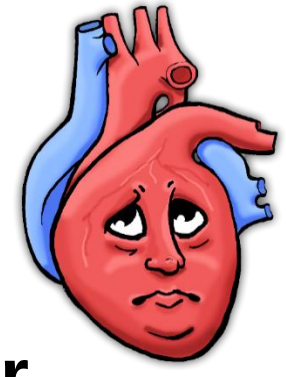
Sleep deprivation is pandemic; an estimated 80 percent of the world's population needs an alarm clock to wake up; common symptoms include:



- ↑ **Daytime sleepiness**
- ↑ **Irritability, nervousness**
- ↑ **Impaired ability to manage stress**
- ↑ **Arguing, fighting, and relationship conflict**
- ↑ **Problems with concentration and memory**
- ↑ **Behavioral learning and/or social problems**

- ↑ Risk of blurred vision
- ↑ Distractibility
- ↑ Prostate cancer
- ↑ Appetite (with only 4 hours of sleep people ate 300 additional calories next day)
- ↑ Weight gain / obesity linked with 50 chronic diseases
- ↑ Risk of clumsiness with accidents and injuries
- ↑ Likelihood for smoking and using alcohol
- ↑ Chronic inflammation and frequent infections
- ↑ Rate of aging and potentially shorter lifespan

- ↑ High blood pressure, heart disease, and stroke
- ↑ Anxiety, depression, and suicide risk
- ↑ Risk of Alzheimer's and other dementia
- ↑ Insulin resistance and diabetes
- ↑ S/S of Attention Deficit-Hyperactivity Disorder
- ↑ Increased risk of infertility



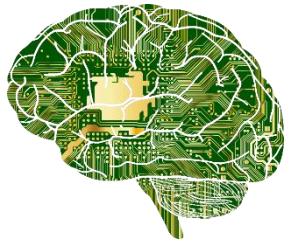
- ↓ Libido and sex drive
- ↓ Vaccine effectiveness
- ↓ Memory and problem-solving ability

By 20 hours without sleep, your reaction time is similar to that of a person with a blood alcohol level of 0.08

PET Scans show that sleep deprivation for 24 hours results in significant brain changes in areas responsible for judgment, impulse control, attention, and visual association, yet you believe you are functioning just fine

The temperature of your brain rises when you are sleep deprived. Yawning causes you to take in deeper breaths of air. Inhaling cool air ventilates your sinuses and helps to dissipate brain heat.

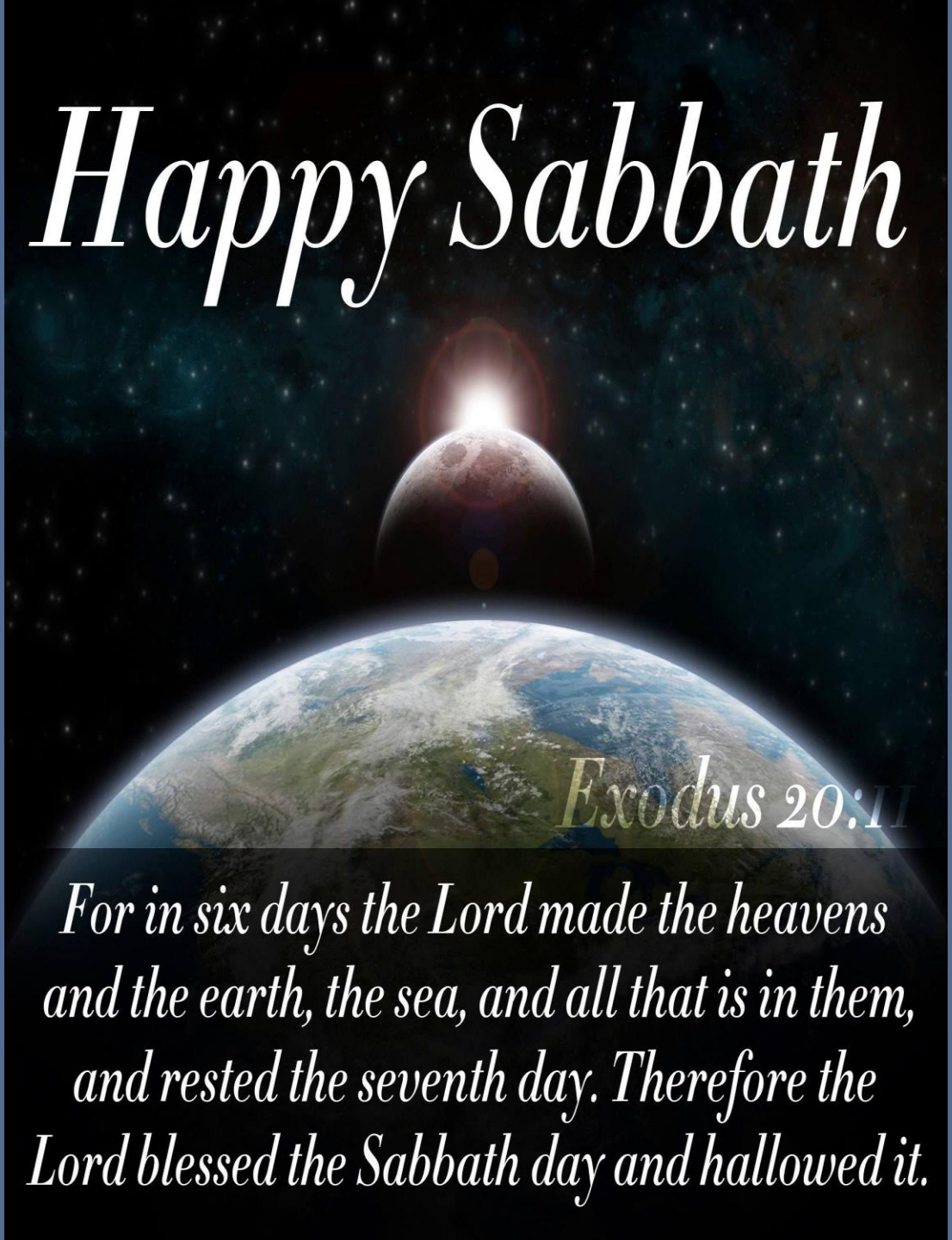
Your biological clock can become programmed to stay up late on Friday and Saturday nights, then sleep in on Saturday and Sunday mornings, which can make it difficult to wake up on Monday …



Sleep Tips:

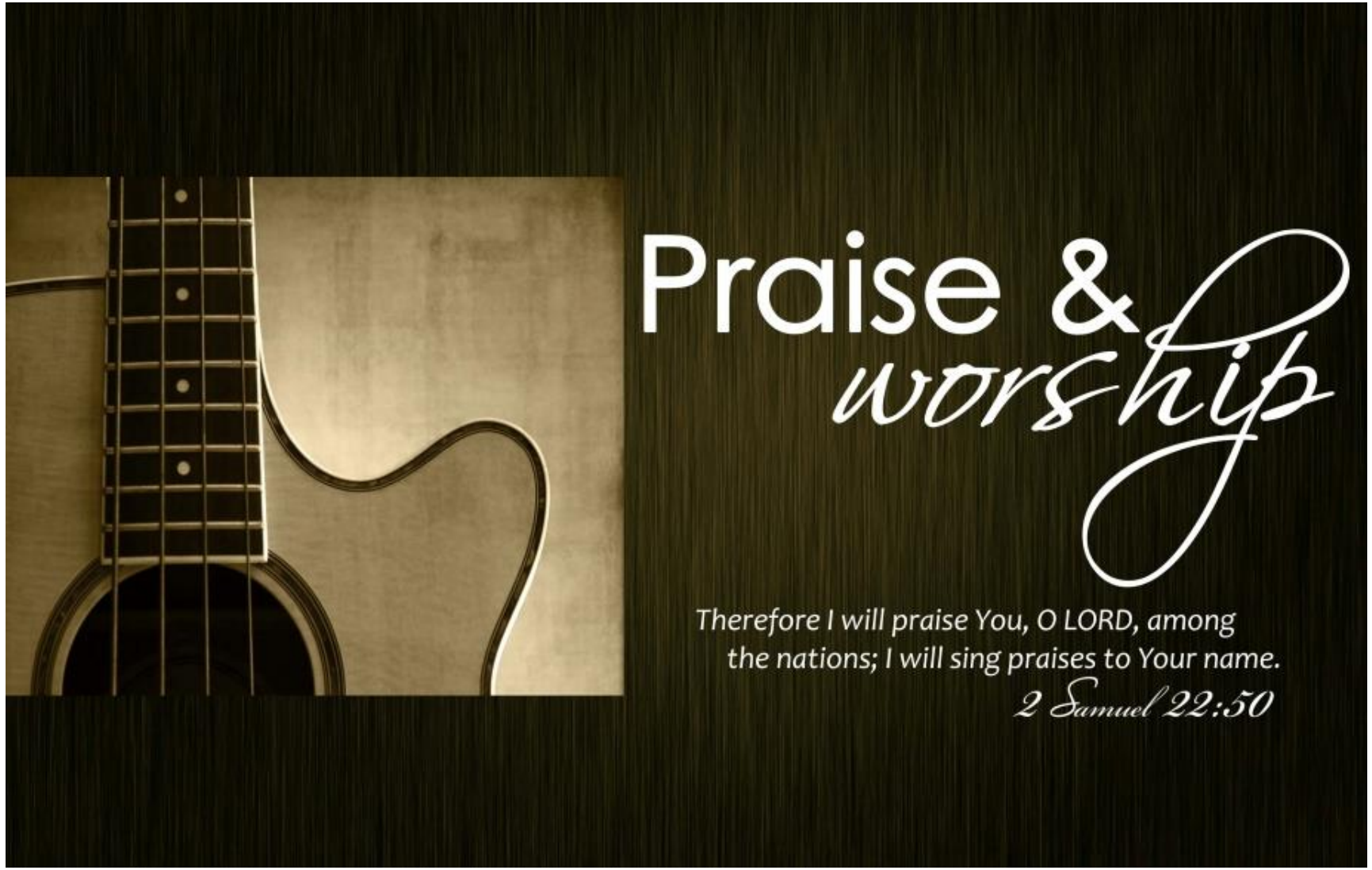
- **Go to bed at same time every night as close to 10 pm as possible (sleep before midnight may be more restorative)**
- **Go to bed and get up at the same time on weekends**

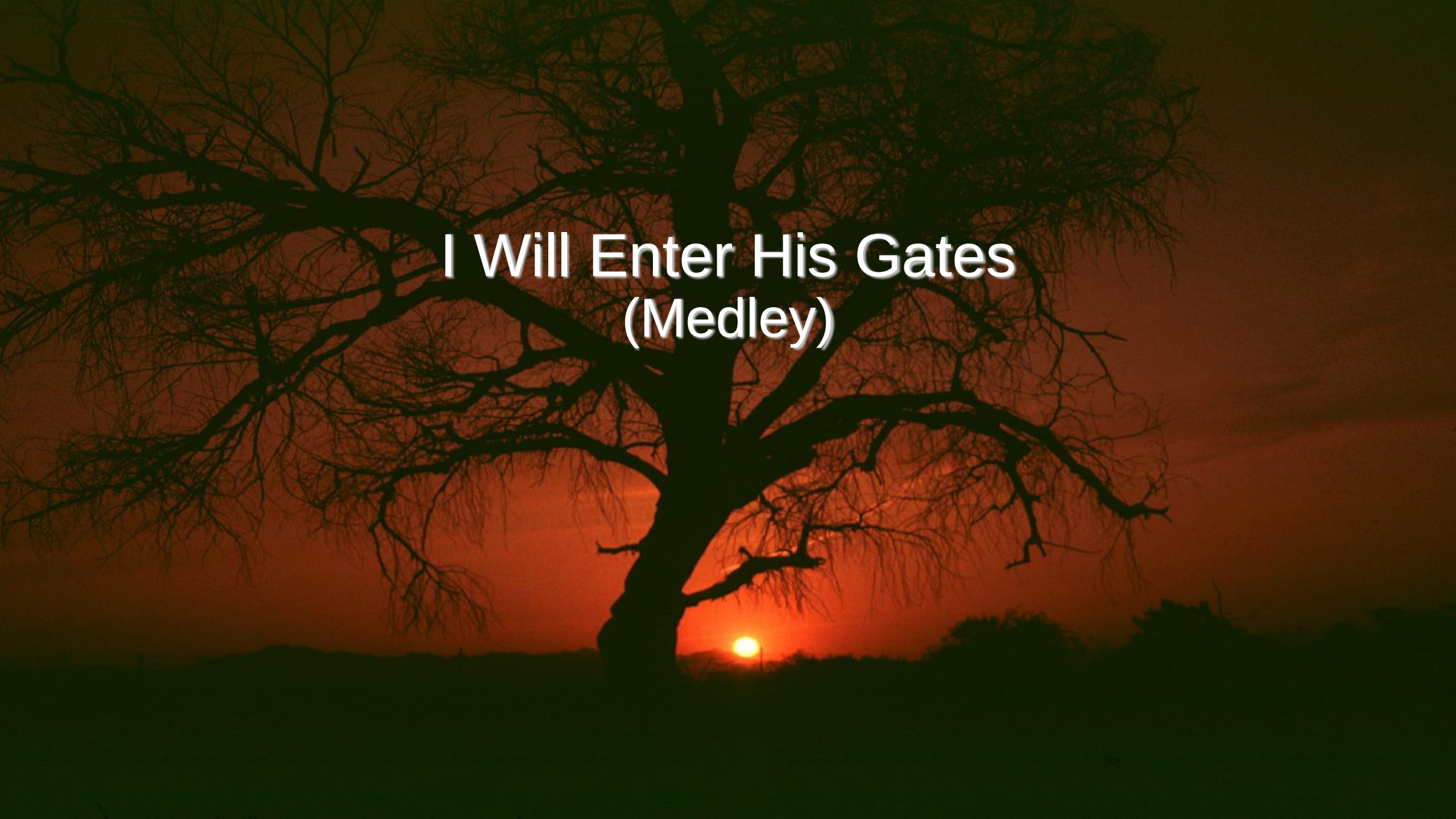
- Sleep in a dark, cool room
- Avoid rotating shifts if at all possible
- Cell phones, iPads, computers, and TV in the bedroom impair quality of sleep for everyone
- Avoid eating after 7 pm so sleep is less interrupted by digestion
- Drink a glass of water before going to sleep to help keep the brain hydrated and decrease risk of brain blood clots
- “Hum” yourself to sleep . . .



Welcome to Stanmore SDA Church

We are glad you are here!

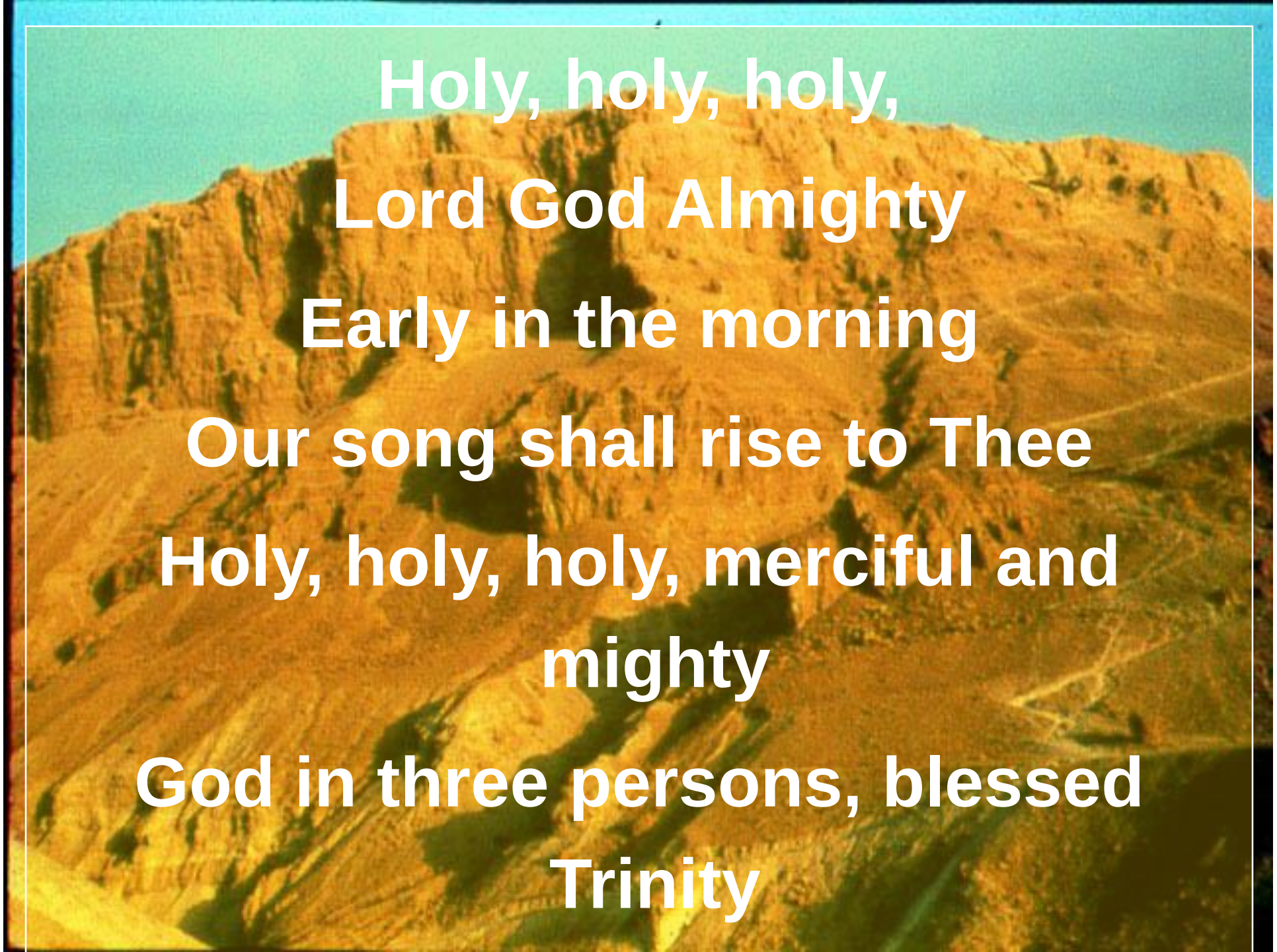

Praise &
worship
Therefore I will praise You, O LORD, among
the nations; I will sing praises to Your name.
2 Samuel 22:50



I Will Enter His Gates
(Medley)

I will enter His gates
With thanksgiving in my heart
I will enter His courts with praise
I will say
This is the day that the Lord has made
I will rejoice for He has made me glad

He has made me glad
He has made me glad
I will rejoice for He has made me glad
He has made me glad
He has made me glad
I will rejoice for He has made me glad



Holy, holy, holy,

Lord God Almighty

Early in the morning

Our song shall rise to Thee

Holy, holy, holy, merciful and mighty

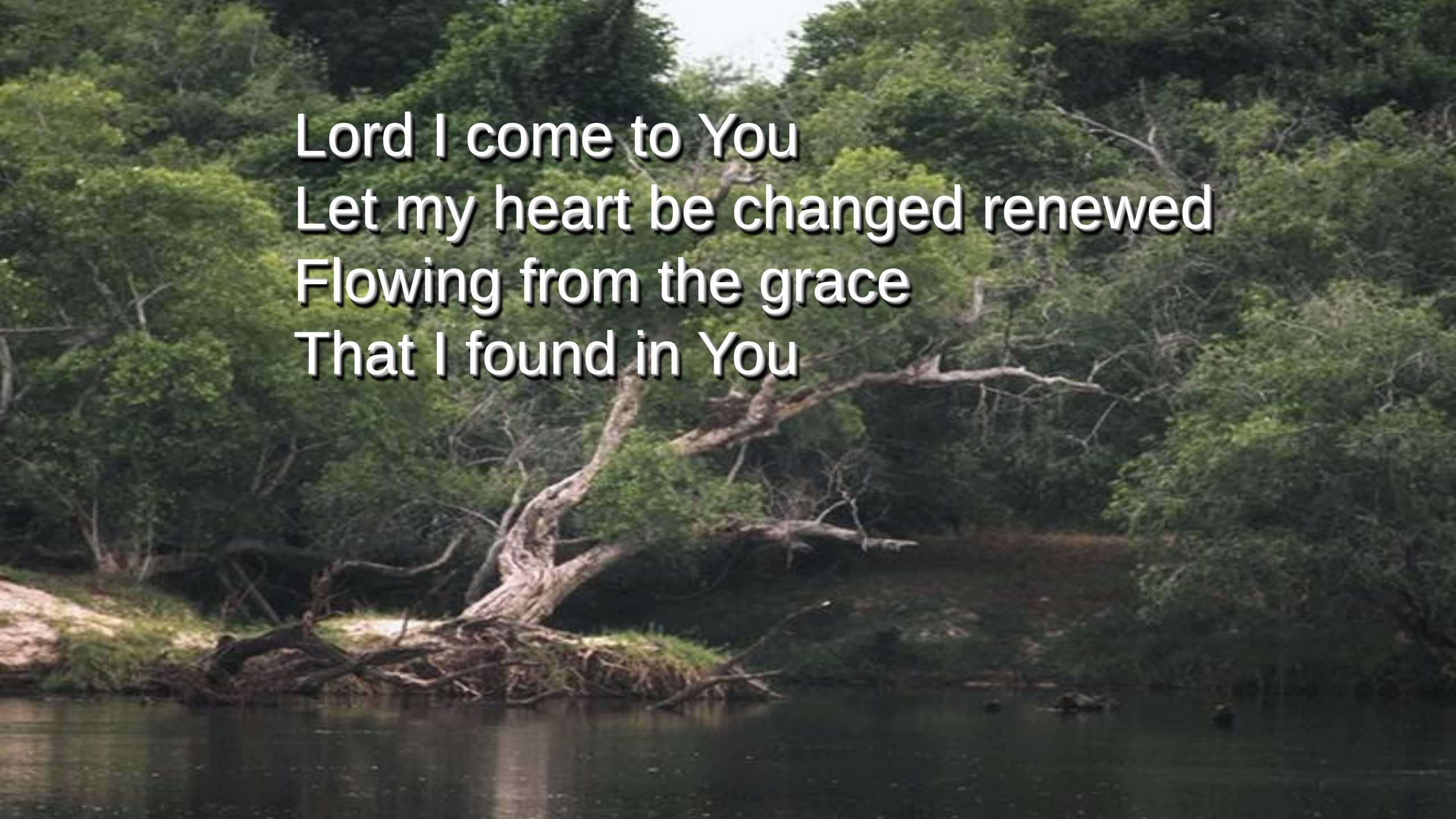
God in three persons, blessed Trinity

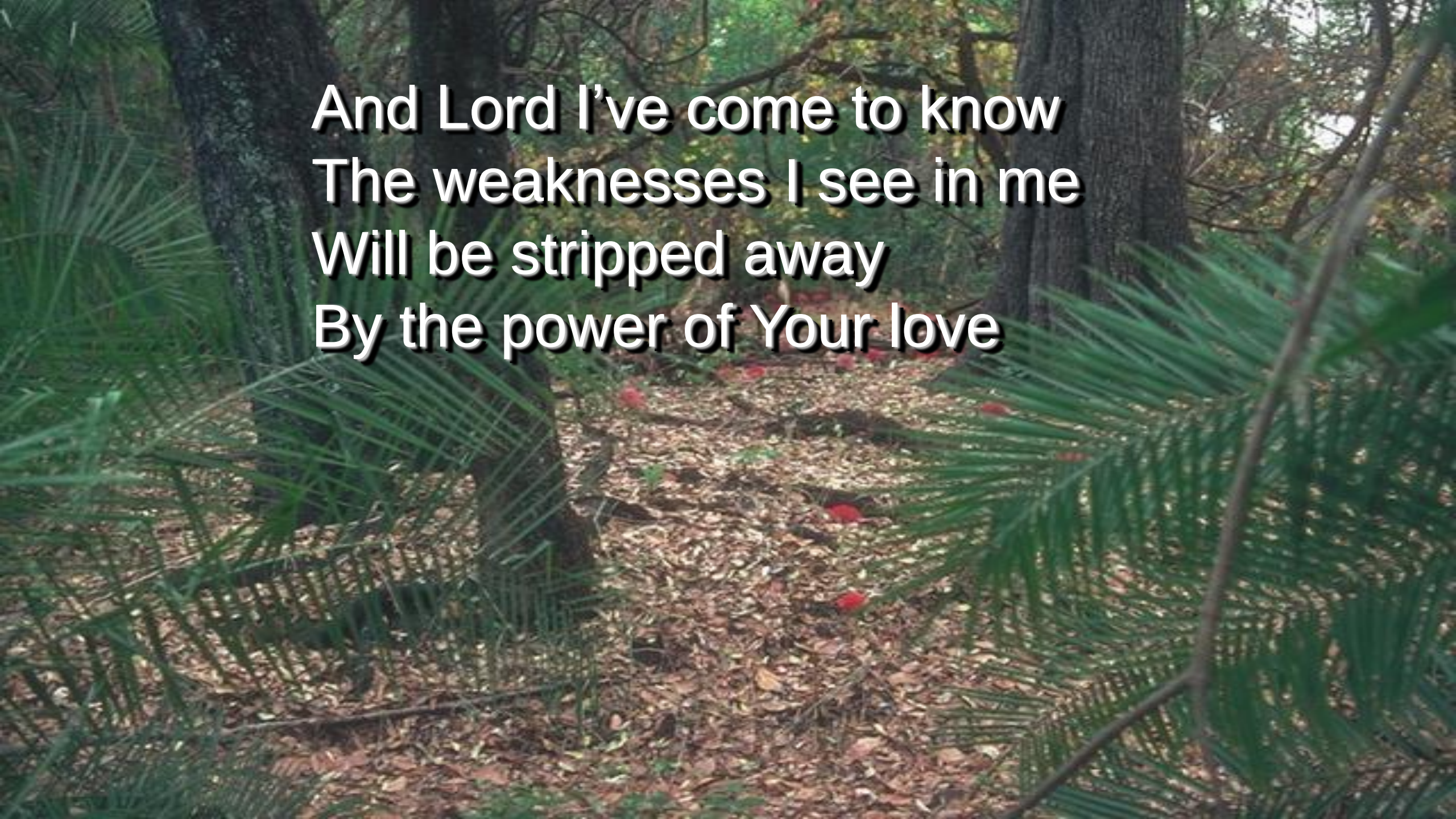
I will say
This is the day that the Lord has made
I will rejoice for He has made me glad

I will rejoice for He has made me glad

The Power of Your Love

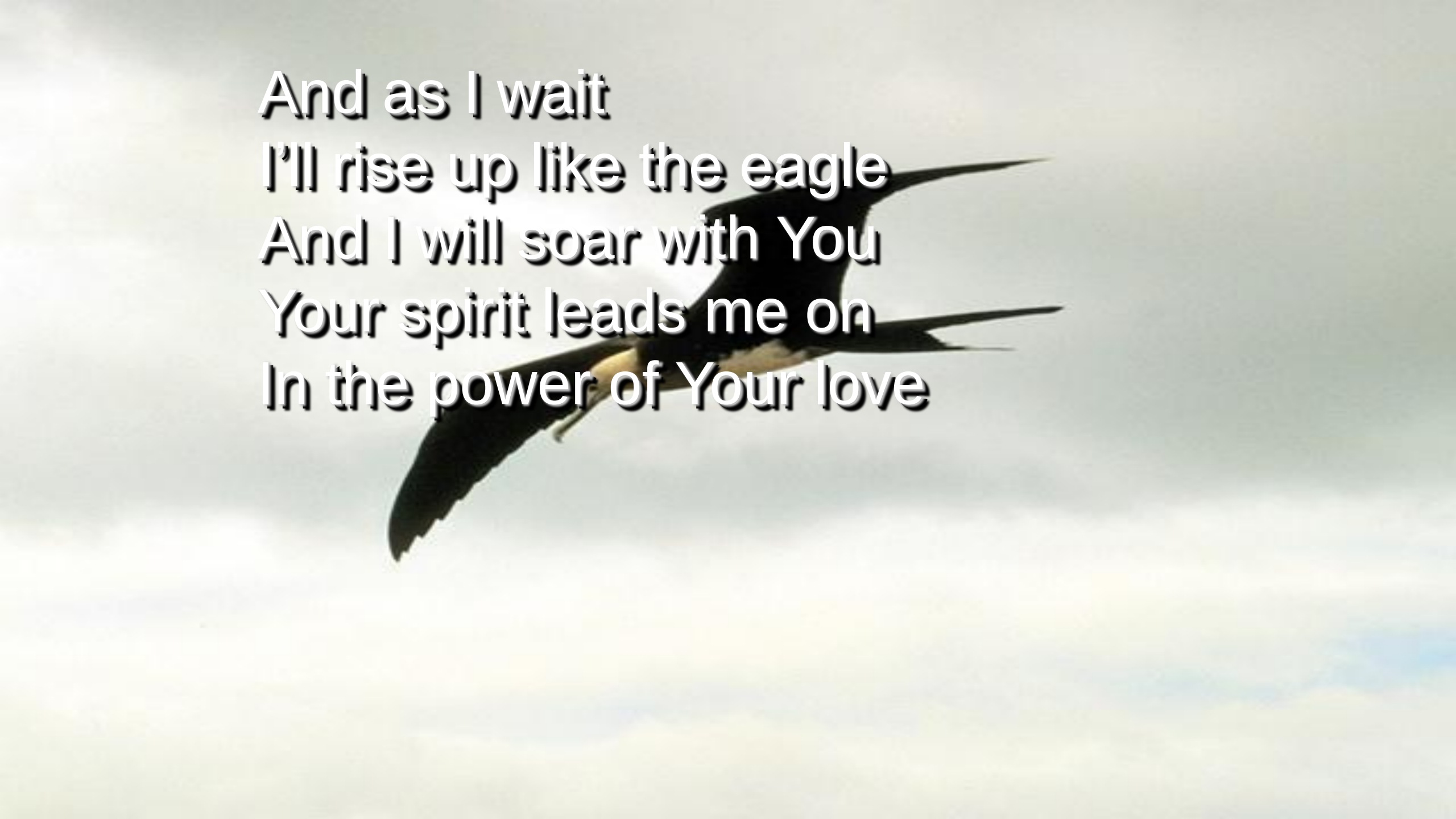
Geoff Bullock


Lord I come to You
Let my heart be changed renewed
Flowing from the grace
That I found in You

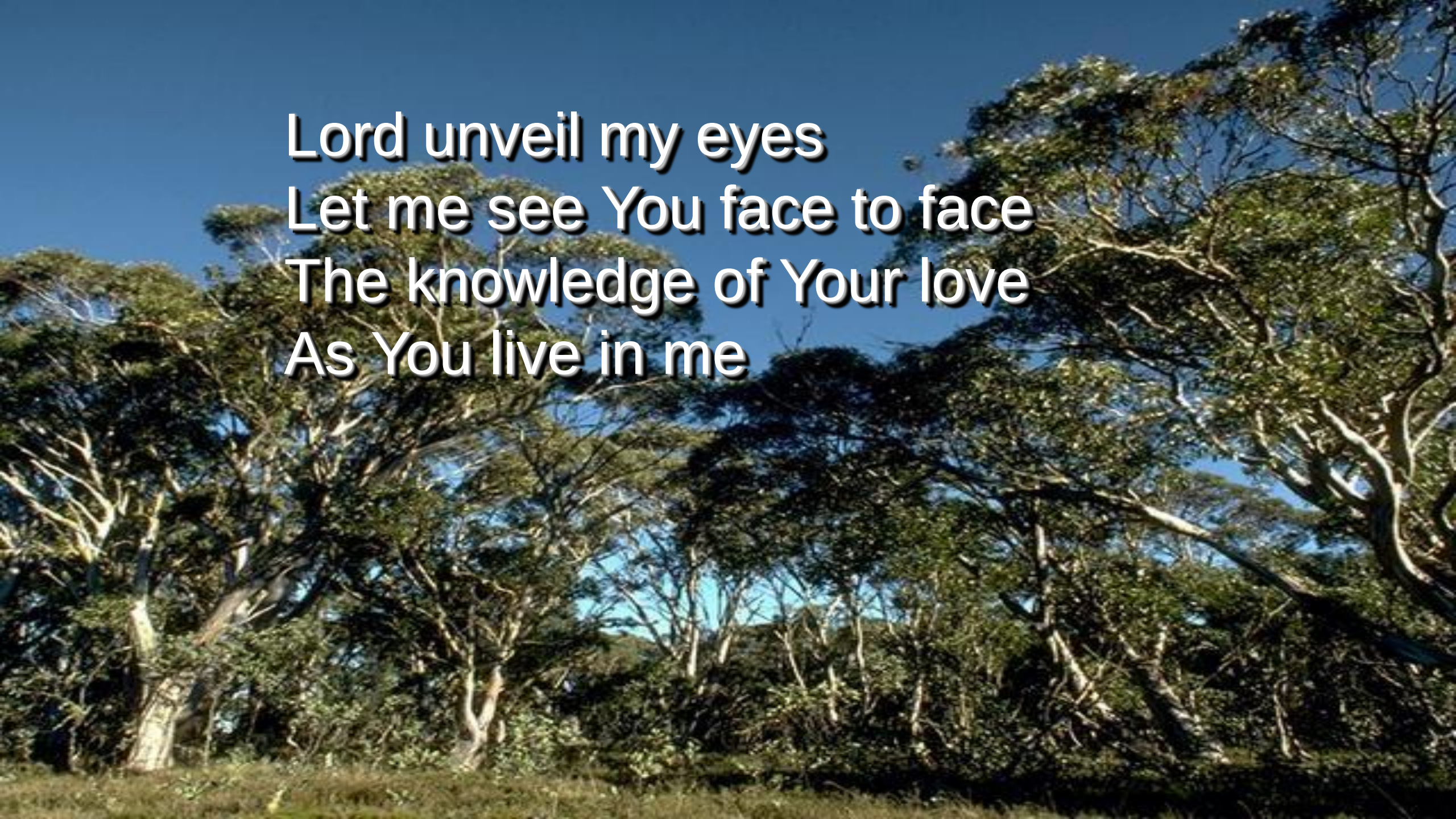


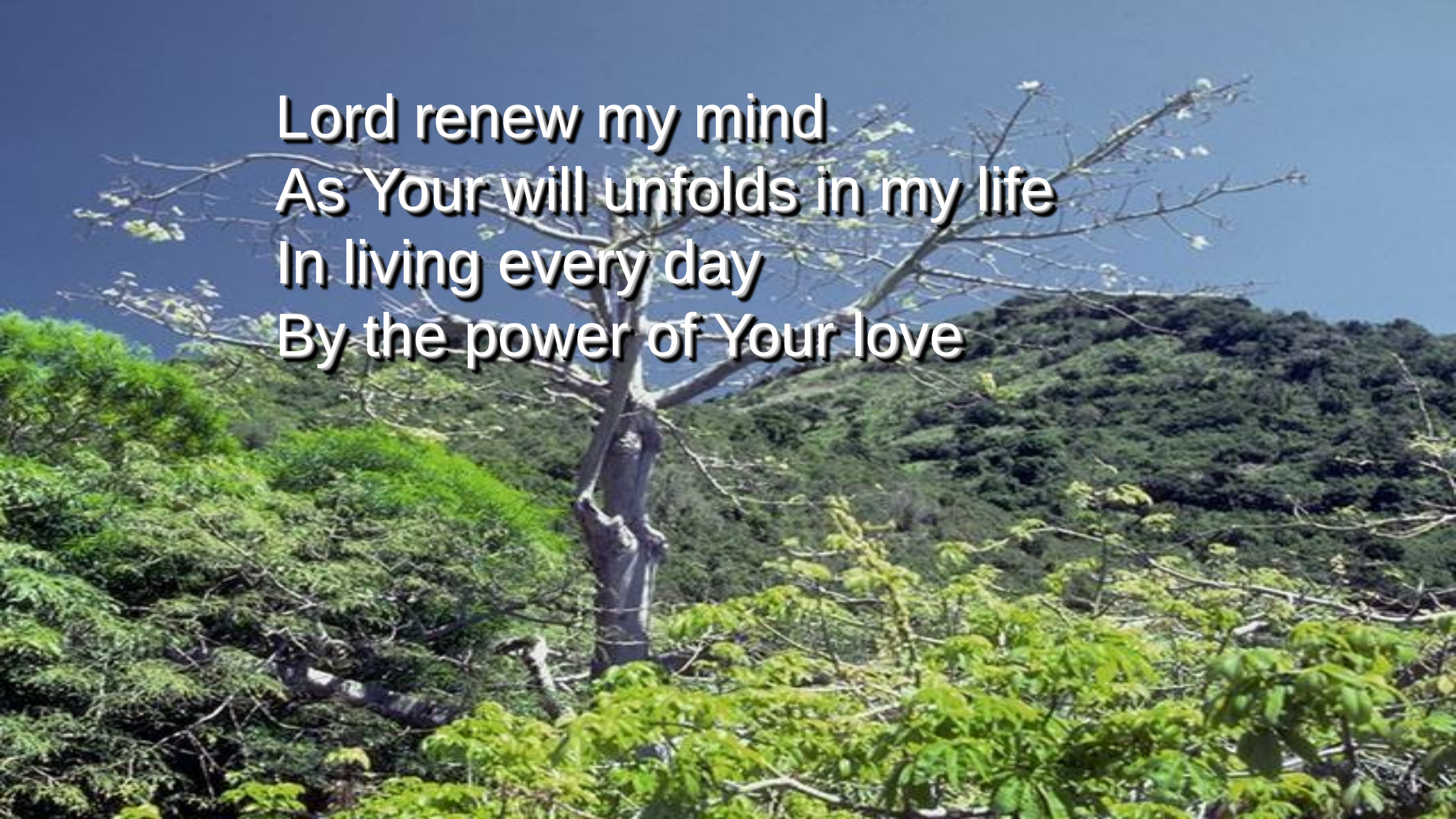
And Lord I've come to know
The weaknesses I see in me
Will be stripped away
By the power of Your love

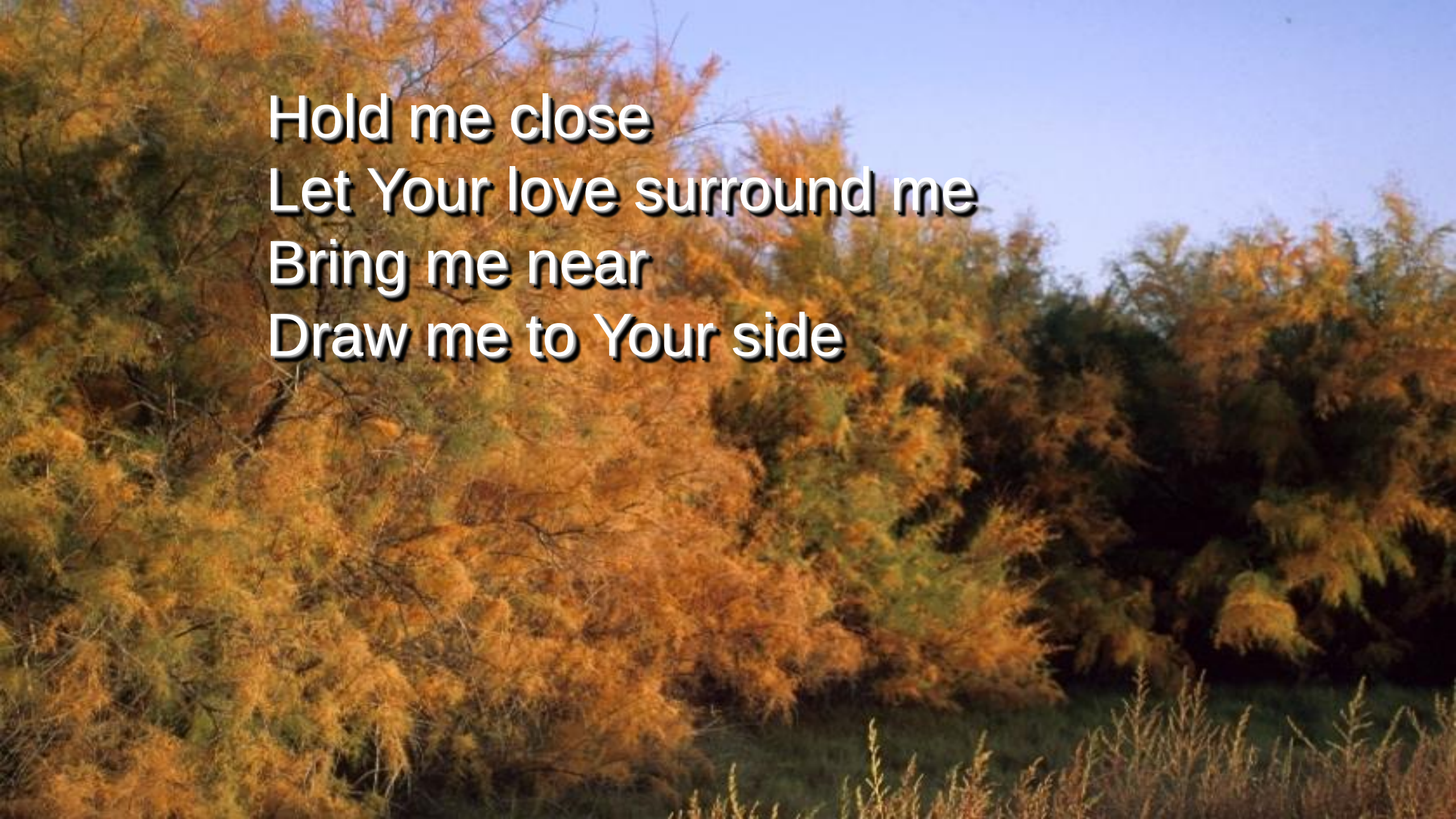

Hold me close
Let Your love surround me
Bring me near
Draw me to Your side



And as I wait
I'll rise up like the eagle
And I will soar with You
Your spirit leads me on
In the power of Your love


Lord unveil my eyes
Let me see You face to face
The knowledge of Your love
As You live in me

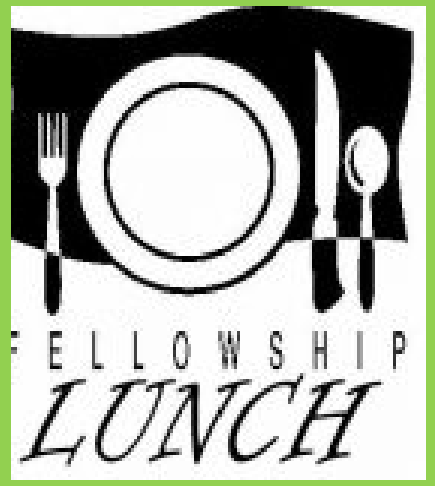

Lord renew my mind
As Your will unfolds in my life
In living every day
By the power of Your love


Hold me close
Let Your love surround me
Bring me near
Draw me to Your side

And as I wait
I'll rise up like the eagle
And I will soar with You
Your spirit leads me on
In the power of Your love

And I will soar with You
Your spirit leads me on
In the power of Your love


ANNOUNCEMENTS



FELLOWSHIP DAY LUNCH TODAY – ALL WELCOME!

HEALTHY COOKING FOR KIDS

WHEN: July 7

See Emilda or Dany

Email:
dany@mauritiansingers.org

Wednesday night
Prayer meetings
Continuing online
at 8:30pm.

Host: Mini
Dial-in number:
(02)4022 9113
Access code:
172587#

Adsafe

https://elearning.adsafe.org.au

NEW CODE OF CONDUCT

FOR
LEADERS : BOARD MEMBERS
CHILD RELATED ROLES

HELPING TO CREATE SAFER CHURCHES

Board Meeting

4:00pm

Offering

invocation

Sweet, Sweet Spirit

Hymn 262

Sweet, Sweet Spirit

Hymn 262

Verse 1/2

There's a sweet, sweet spirit in this place
And I know that it's the spirit of the Lord

Sweet, Sweet Spirit

Hymn 262

Verse 2/2

There are sweet expressions on each face
And I know they feel the presence of the Lord

Sweet, Sweet Spirit

Hymn 262

Refrain

Sweet Holy Spirit, Sweet Heavenly Dove
Stay right here with us filling us with Your love
And for these blessings we lift our hearts in praise
Without a doubt we'll know
That we have been revived
When we shall leave this place

Silent Prayer


WELCOME


PRAYER
TIME
Tim Oladeru


TITHES
AND
Offerings

Special Item

‘You Raise Me Up’

By Sarah, Nathalie & Cindy

Dr Arlene Taylor

leading speaker on brain function

Session 2

Nature + Nurture = You
(or Genetics + Epigenetic impacts your health and your lifespan)

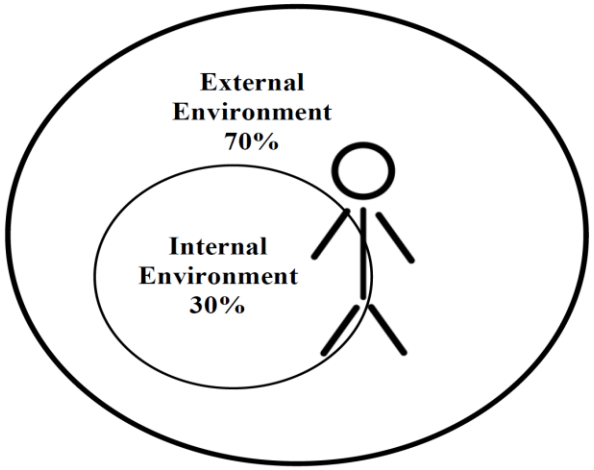
Epigenetics and Cellular Memory

©Arlene R. Taylor PhD
www.arlenetaylor.org
www.LLM.life

Realizations Inc
SUCCESS RESOURCES INTERNATIONAL
SINCE 1983

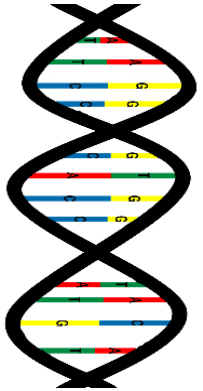
Nature + Nurture = You

Nature involves genetics, which account for about 30 percent of the impact to your health and lifespan



Genetics is your biological heredity, the biological "stuff" you inherit from your mother and father—including your chromosomes and 25,000 genes that contain the "blueprints" for the building blocks of life and the person you were meant to be

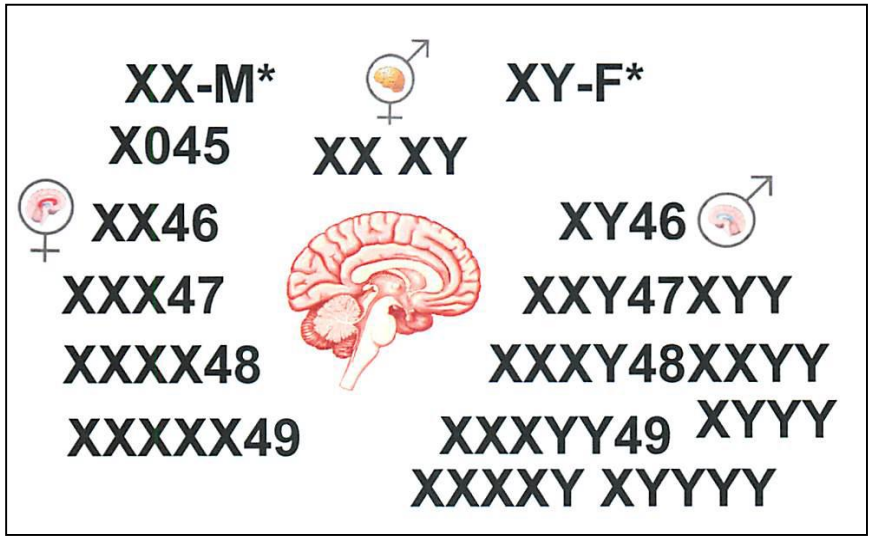
Chromosomes are twisted strands of DNA divided into smaller bits called genes

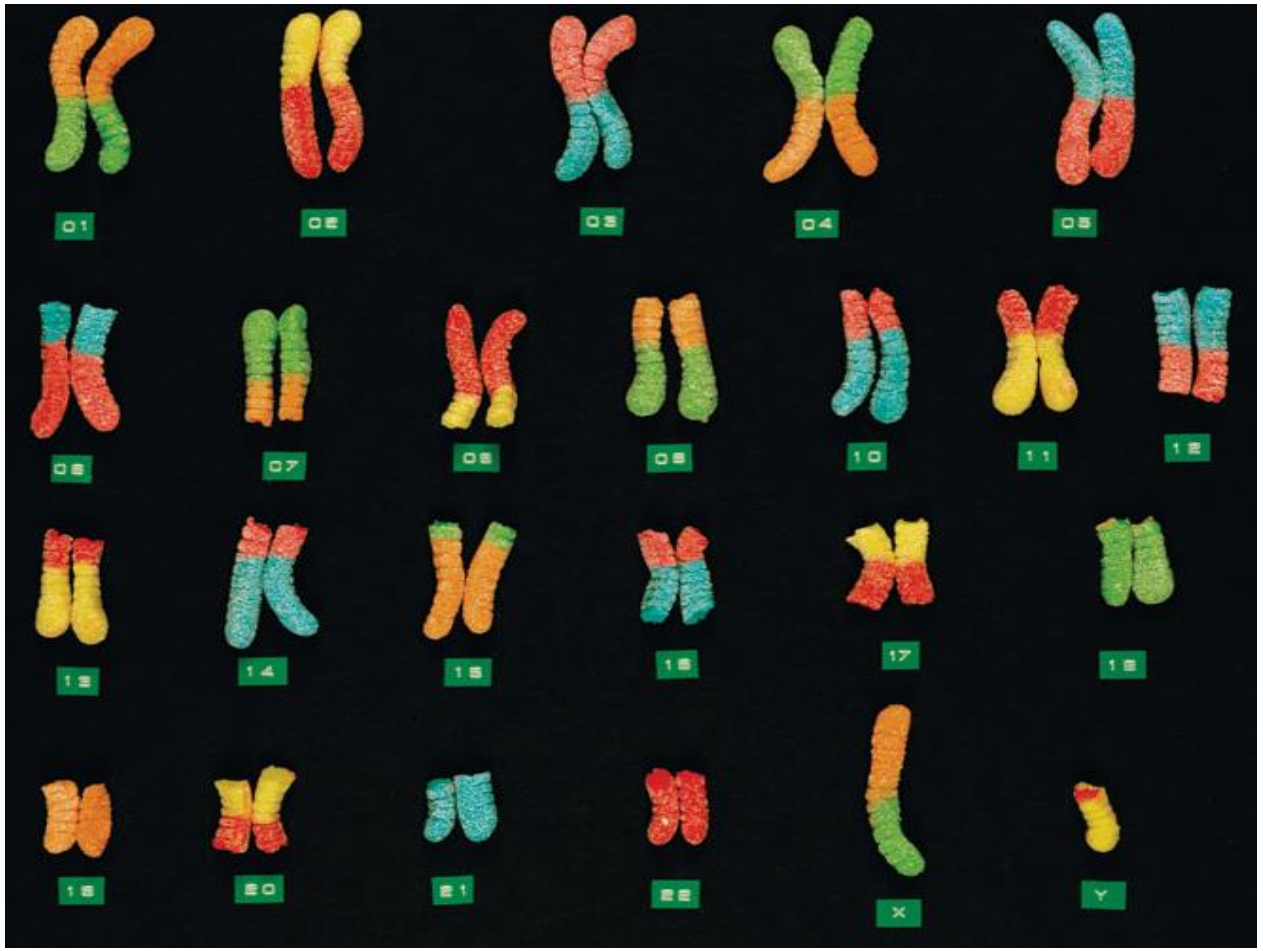


Picture chromosomes as a type of coiled ladder with the genes located on the ladder rungs—*1962* Nobel Prize was awarded for the discovery of this double helix

Genes determine your inherited traits such as male or female, height, skin-eye-hair color, your IQ range, specific areas of giftedness (music, math, literature, science, the arts, mechanics, inventiveness, brain functions …)

46 chromosomes: 22 pairs (one from each parents) and the 23rd pair is the X and the Y





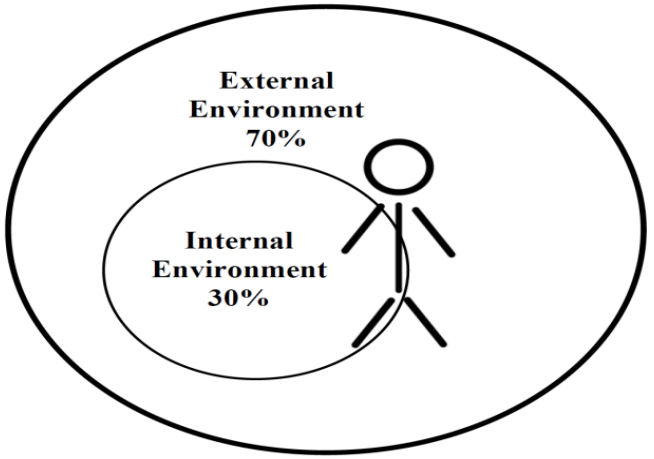
More than 95 percent of embryos form correctly, based on the genetic blueprints; the rest may exhibit a birth defect

By the end of the first 12 weeks, the initial construction of all the body organs is in place

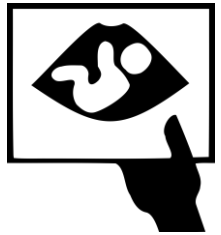
The brain, however, continues to develop throughout pregnancy with neurons being created at the rate of 250,000 per minute—more than half of all fetal metabolic energy is devoted to growing the brain, which will continue to develop and mature until late 20's or early 30's

Nurture involves **epigenetics:** "epi" means "above." ***Above genetics***. It accounts for about 70 percent of your level of wellness and lifespan. It is everything that is not genetics:

The sum total of your internal and external environments, beginning with conception and continuing with a calm or stressful gestation, a pleasant or traumatic birth experience, the memory of which likely is lodged in your subconscious, and all the memories created by ALL your lifestyle choices and by events that you did not create or even want …



Epigenetics has a definite impact on the process of gestation… in whatever way the mother experiences her internal and external environments—happy, angry, fearful, sad, or stressed—the fetus will pick that up; if the stress response is triggered frequently and adrenalin and cortisol flood her body, the fetus can become hyper-sensitive to perceived stressful events, tending to *overreact* in stressful situations for years after it is born



It learns about safety or danger in the external environment from this epigenetic information.

Researchers believe the fetus knows if it was wanted or not, if it is the gender preferred by the parents, and if maternal and paternal families are happy about the situation or not

A child tends to like the foods and beverages that the mother ate and drank during pregnancy

It's *not* just maternal stress that can impact the developing fetus. Studies with mice led by Tracy Bale, PhD, at the University of Maryland, School of Medicine, have shown that negative and/or chronic stressors can alter the father's sperm, which then can alter fetal brain development

Epigenetics may also help to explain the “rage” or “depression” that some abandoned, foster, surrogate, And adopted children exhibit. Their new environments are very different from the gestational environment it became accustomed to. Healthy or unhealthy, it was familiar: smells, tastes, sounds, touch, music, and sometimes language, race, culture, or even location on the planet. This disconnection can be stressful, unsettling, and terrifying for the child. It can help if the adoptive parents have a piece of clothing from the biological mother containing her “smell” to help the child transition from one environment to another

Epigenetics may actually account for more than the estimated 70 percent since it can impact genetics

This relatively new body of knowledge about biology helps to explain how some illnesses, diseases, addictions, and other behaviors tend to “run” in families, occurring more frequently than in other family systems

It is also clarifying what you can and cannot change in this complex nature-nurture equation

Who you are as a unique individual involves complex *interactions* among your brain and spinal cord, your genome (genetic biological inheritance of chromosomes and genes), your epigenome (everything that is not genetics), your microbiome and virome (bacteria and viruses—good and bad—that live inside you),

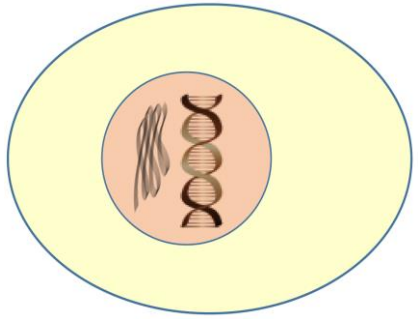
Which means, as William Faulkner put it, the past is never dead. It's not even past! You carry it within you.

Epigenetics includes Cellular Memory . . .

Cellular memory is a label for imprinted memories that are passed from biological ancestors to their offspring

It is fascinating phenomenon involving subconscious memories of behaviors exhibited by biological ancestors from 3-4 generations back—and that can be passed on to the next 3-4 generations of your biological line

These memories are thought to be carried on protein strands in cells that have a nucleus—and can provide an impetus or an urge toward specific behaviors

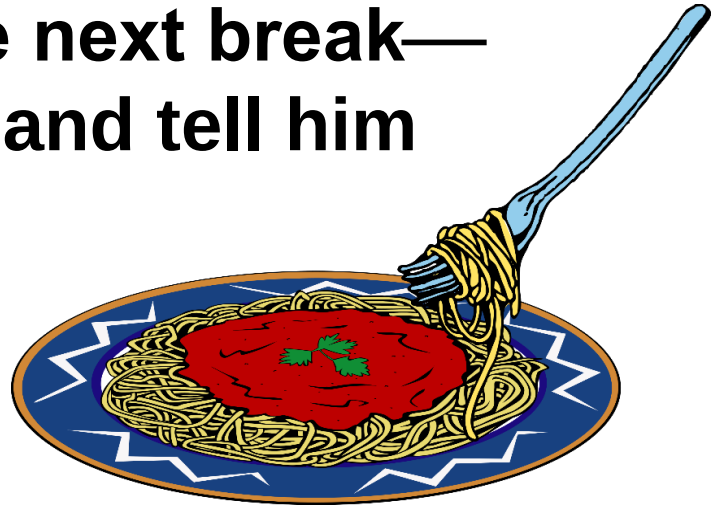


You do not choose what was donated to you by your biological ancestors but you DO choose whether or not you will act upon the impulses

Cellular memory helps to explain how specific behavioral and disease patterns show up frequently in generational lines, albeit inconsistently; behavioral differences observed among siblings with the same parents and in foster, surrogate, and adopted children regardless of present environment; and in behavioral changes related to organ transplantation

I was presenting the topic of Cellular Memory and a woman came up to me at the break and said,

“I need to tell you something at the next break—right now I have to call my brother and tell him he’s not crazy . . . ”



Cellular memory may impact relationships via likes and dislikes whether or not you can verbalize reasons

You build and retain cellular memory for every person with whom you have sexual activity—which can impact potential monogamy and cause problems in new relationships when traumatic cellular memory exists from prior relationships

Cellular memory is more readily activated in situations that resemble the one in which the original cellular memory was laid down (visit ancestral countries, home for holidays, study for a test under an influence of a drug) and is likely Involved with déjà vu or past-life theory

You are an omnibus in which your ancestors ride

—Oliver Wendell Holmes

Once two systems come into energetic contact, they are forever connected by the cellular memories of their connection

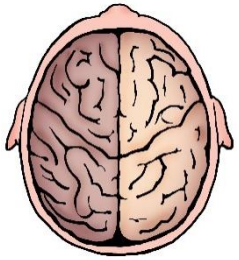
Experiences with parents and others close to you remain within you

—Paul Pearsall PhD

Make sure those experiences are pleasant, loving, and affirming…

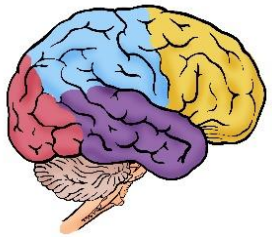
Fourteen epigenetic strategies have been identified over which you can have partial—if not complete—control:

- Mindset
- Self-talk
- Emotional Intelligence
- Physical Exercise
- Brain Stimulation
- Optimum Sleep
- Essential Hydration
- Safety
- Sunlight
- Nutrition
- Laughter
- Support System
- Stress Management
- Life Satisfaction



How can you impact epigenetics positively?

Learn **what you can about your genetic inheritance, as strategies may be available to reduce your risk for some illnesses and diseases**



Create **a brain-based longevity lifestyle and implement the 14 researched components**

Identify **your mindset and personal perceptions and course correct as needed**

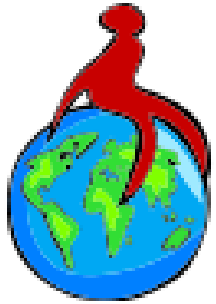
Prevent **what has been shown to be preventable**

Raise **your Emotional Intelligence or EQ to help avoid conflict, reduce stress, and make good choices**

Choose **wisely, making decisions based on informed evaluations**

Use **willpower to help you create and sustain new behaviors successfully**

Give **thanks and enjoy life, taking the best care possible of the brain and body leased to you for use on Planet Earth**



To recap: you arrived on Planet Earth with a genetic biological inheritance—your *genome*—responsible for about 30 percent of your level of wellness and your potential lifespan

Your *epigenome* is everything that is not genetics and is worth 70 percent of how well and how long you live

Epigenetics (lifestyle) has a much greater impact on health and longevity than was thought possible; the choices you make via epigenetics impact you negatively or positively

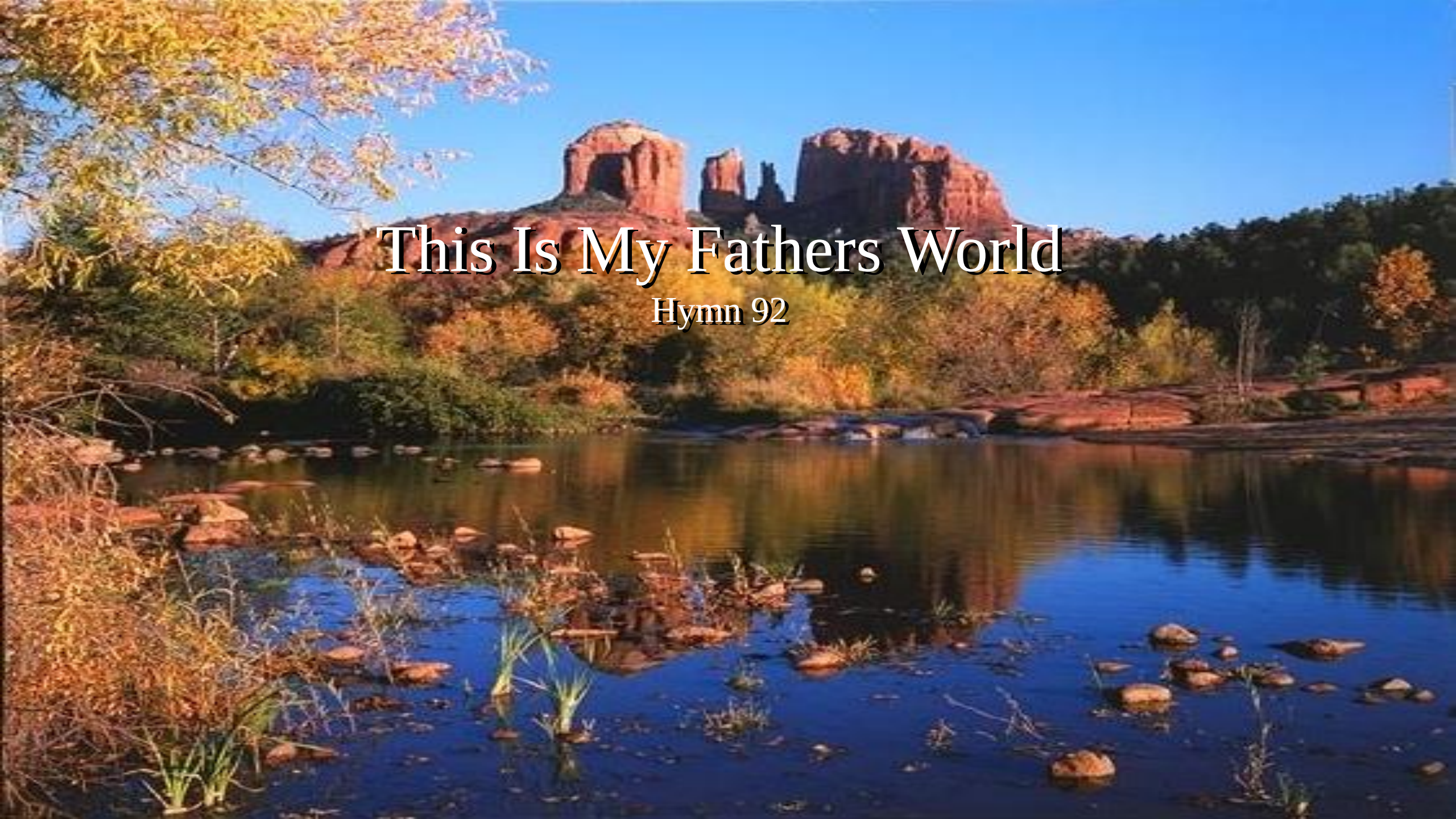
I pray that you may prosper in all things and be in good health, even as your soul prospers

—Apostle Paul, 3 John 1:2

Do you *really* want to stay healthier and younger for longer?

You can't change the past, but you <u>can</u> create a healthier future!

You are the only person who can do this for you



This Is My Fathers World

Hymn 92

This Is My Fathers World

Hymn 92

Verse 1/3

This is my Father's world
And to my listening ears
All nature sings, and round me rings
The music of the spheres
This is my Father's world
I rest me in the thought
Of rock and trees, of skies and seas
His hand the wonders wrought

This Is My Fathers World

Hymn 92
Verse 2/3

This is my Father's world
The birds their carols raise
The morning light, the lily white
Declare their maker's praise
This is my Father's world
He shines in all that's fair
In the rustling grass I hear Him pass
He speaks to me everywhere

This Is My Fathers World

Hymn 92

Verse 3/3

This is my Father's world
O let me ne'er forget
That though the wrong seems oft so strong
God is the ruler yet
This is my Father's world
Why should my heart be sad
The lord is King, let the heavens ring
God reigns, let the earth be glad

Thank you for leaving the church quietly.