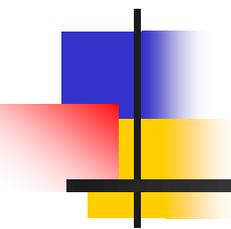


# SCIENTIFIC BASIS OF WHOLENESS



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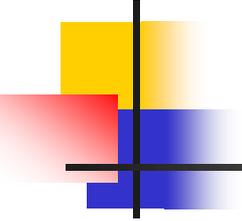
God, Medicine, and Miracles – chapter 4



# Proverbs 14 : 30

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- Peace of mind makes the body strong
- Envy makes the body sick
- The beginning of psychoneuroimmunology  
3000 years ago



# The Biology of Feelings and Emotions

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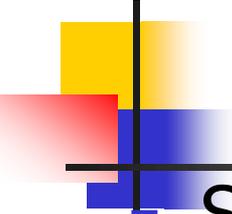
- Thoughts, feelings, emotions, and desires affect the functioning of our organ systems
- This is mediated through the endocrine and nervous systems
- Integrated studies of physiology and psychology demonstrate the links between the affect and the body

# STUDY OF STRESS

## Dr. Hans Selye - Toronto

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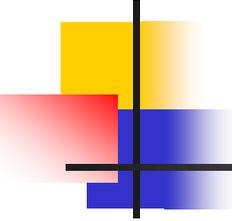
- A Canadian researcher from 1940s – 1970s
- Studied the effects of stress on the physical organs of animals
- Very creative work
- Recognized as the “Father” of stress studies
- Work confirmed extensively ever since
- See his book *The Stress of Life*, McGraw-Hill 1976



# Findings of Dr. Selye

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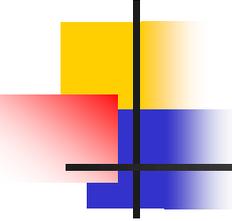
- Stress is the response to pressure
- Pressure comes from conflicts, overwork, anxiety, confusion, trauma, etc.
- Stress stimulates the production of certain hormones – adrenaline and cortisol, the inflammatory hormone
- This is a protective response for our benefit to prepare our organs for defense and action
- But over time the effects of chronic stress can cause damage to organs and subsequent illness
- Heart and vessels, GI tract, bones and joints, collagen tissues, and so forth



# PSYCHONEUROIMMUNOLOGY

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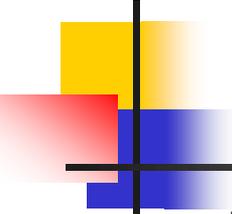
- Psycho – thoughts, feelings, emotions that influence
- The brain – Neurons in the brain that produce chemicals that act on
- The Immune system – white blood cells and antibodies



# Neurochemistry

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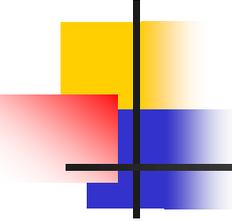
- Brain cells make chemicals in response to emotions and feelings
- A specific neurochemical (NC) is produced for each emotional state
- The NCs go into the blood and circulate throughout the whole body
- They affect all organs including the immune system
- The psyche strongly influences physiology and can produce physical pathology



# Physical changes of acute stress

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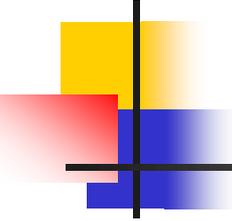
- Heart rate accelerates and the force of contractions increases
- Arteries contract and blood pressure increases
- Shallow breathing as bronchioles dilate
- Muscles are tense to prepare for action
- More blood flows to the muscles
- Digestion slows



# Physical changes of acute stress

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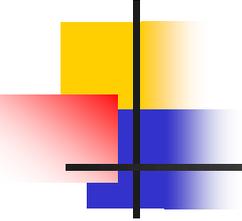
- Blood clotting increases to slow blood loss from wounds
- Blood leaves hands and feet and they become cold and clammy
- Senses sharpen and pupils dilate
- Sweat glands increase perspiration
- Blood sugar increases to give energy
- Urge to urinate or defecate



# What produces these changes?

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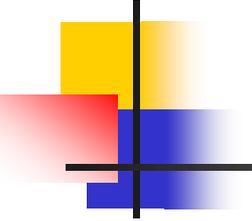
- Adrenalin and cortisol from the adrenal glands
- Neurochemicals from the brain
- These are produced instantly and act immediately
- This is to protect us
- Strong emotions produce physical changes immediately



# Positive feelings

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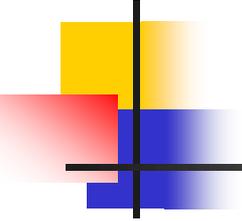
- Joy, happiness, peace, laughter, sense of security stimulate production of “happy” NCs
- These make the body feel good:
  - Relaxation, reduced tension, increased strength
  - Ability to do mental and physical effort
- We feel better and have fewer illnesses



# Negative feelings

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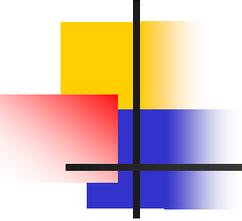
- Fear, anxiety, anger, envy, guilt, shame, and many others stimulate the production of defensive neurochemicals
- These prepare the body to defend itself or to take strong action
- This is normal. It is how God made us
- Prolonged negative feelings are not normal
- They keep the organs in defensive tension
- Over time, this can lead to bodily damage



# AN EXAMPLE

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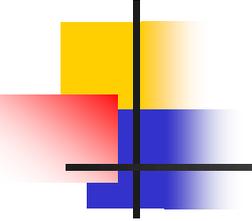
- A woman with fear



# JESUS AND FEAR

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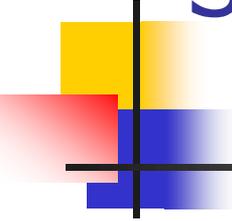
- Jesus can take away our fear
- Fear can cause physical symptoms - in this case, pain from muscle tension
- I was unaware Karen had physical pain
- She was unaware of the connection between her fear and the pain
- Jesus healed her fear and pain **together**



# Negative feelings lead to chronic internal stress

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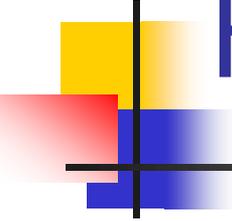
- Fear – of death, disease, disaster, sorcery
- Conflicts with other people
- Too many demands made on us
- Anger, bitterness, hatred
- Uncontrolled desires, passions, addictions
- Guilt, shame, sense of rejection
- Depression



# Sickness of the soul (negative feelings) can cause or aggravate illnesses

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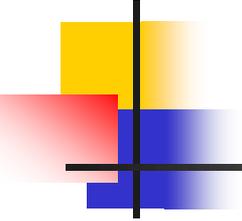
- Care for soul and spirit should accompany care for the body
- Helping persons resolve negative feelings and diminish stress or learn to handle it better
- **Healing of soul and spirit** can lead to physical improvement and even healing of physical diseases
- Jesus is the real Healer of soul and spirit



# Healing of soul and spirit

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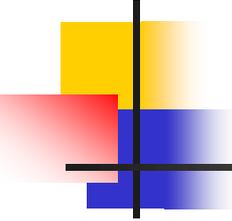
- Resolution of anxiety, tension, inner conflicts by releasing them to Jesus
- Replacement of these by God's peace
- Hope for new life now and eternal life
- Increased means to cope with stress
- Improved self identity



# STRESS-RELATED ILLNESSES

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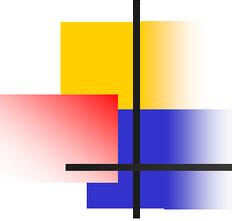
- Hypertension, much cardio-vascular disease
- Chronic headaches, some depressions
- Some digestive and intestinal disorders
- Chronic fatigue or pain syndromes
- Some malignancies
- Auto-immune diseases, adult diabetes
- ?? – MS, ALS, Crohn's, lupus .....



# THE IMMUNE SYSTEM

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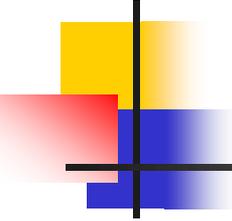
- What God has put into our body to protect us from many diseases
  - Infections
  - Malignancies
- It is very complex, but basically is :
  - White blood cells – “soldiers of defense”
  - Antibodies – “chemical warfare”



# THE IMMUNE SYSTEM NEEDS

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- Good food – a balanced diet
- Protection from illnesses
- Early treatment of illness
- Peace of mind



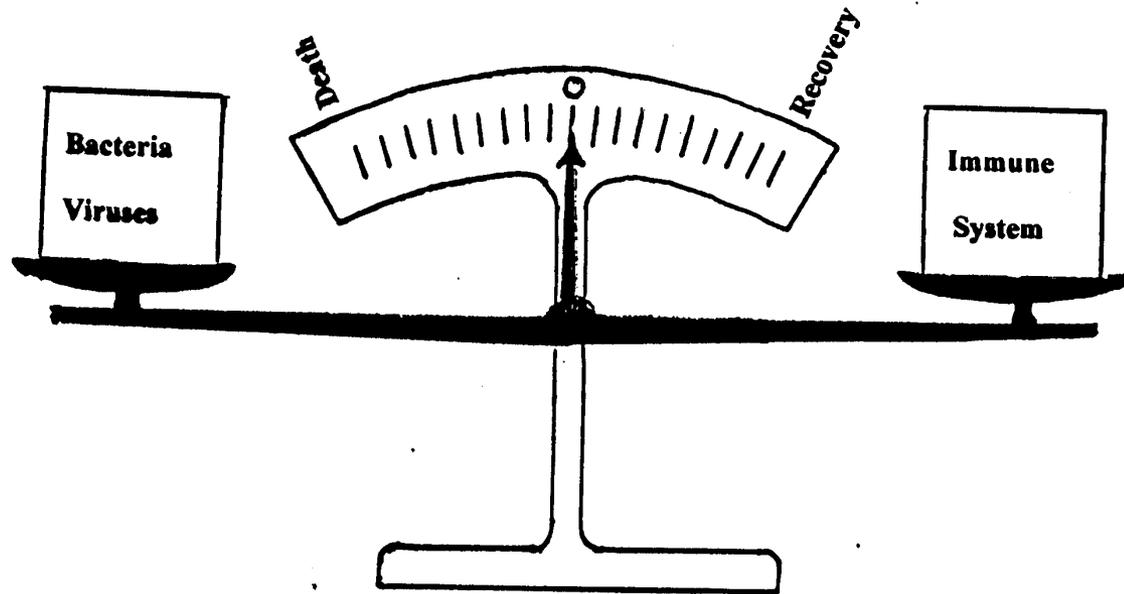
# IT IS WEAKENED BY

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- Poor food
- Frequent infections
- Chronic stress
- Painful feelings and emotions

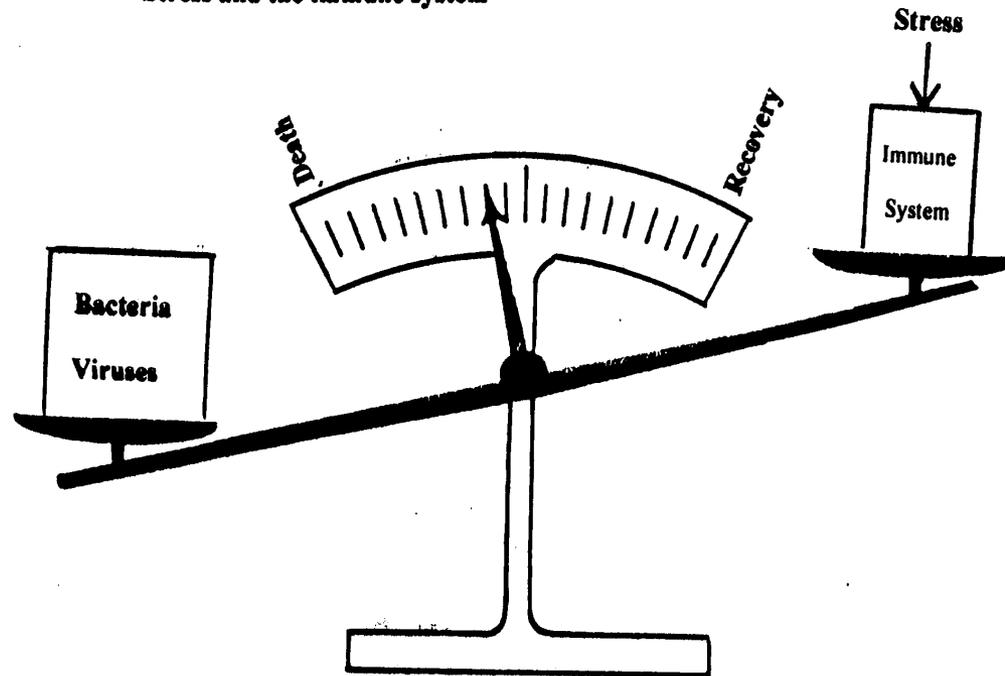
# THE IMMUNE SYSTEM/DISEASE BALANCE

The disease/immune system balance



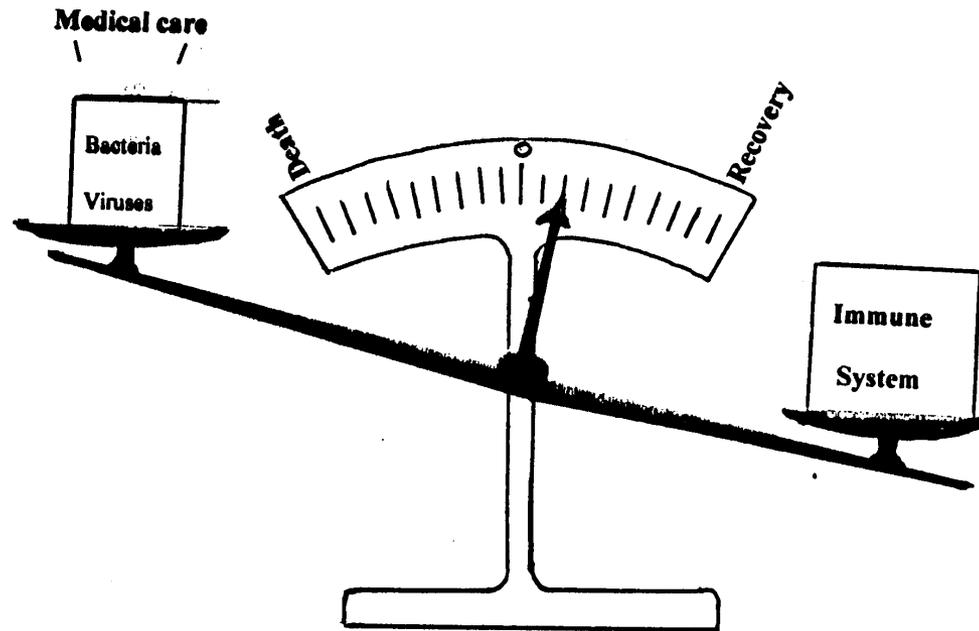
# STRESS, FATIGUE, POOR DIET

Stress and the immune system

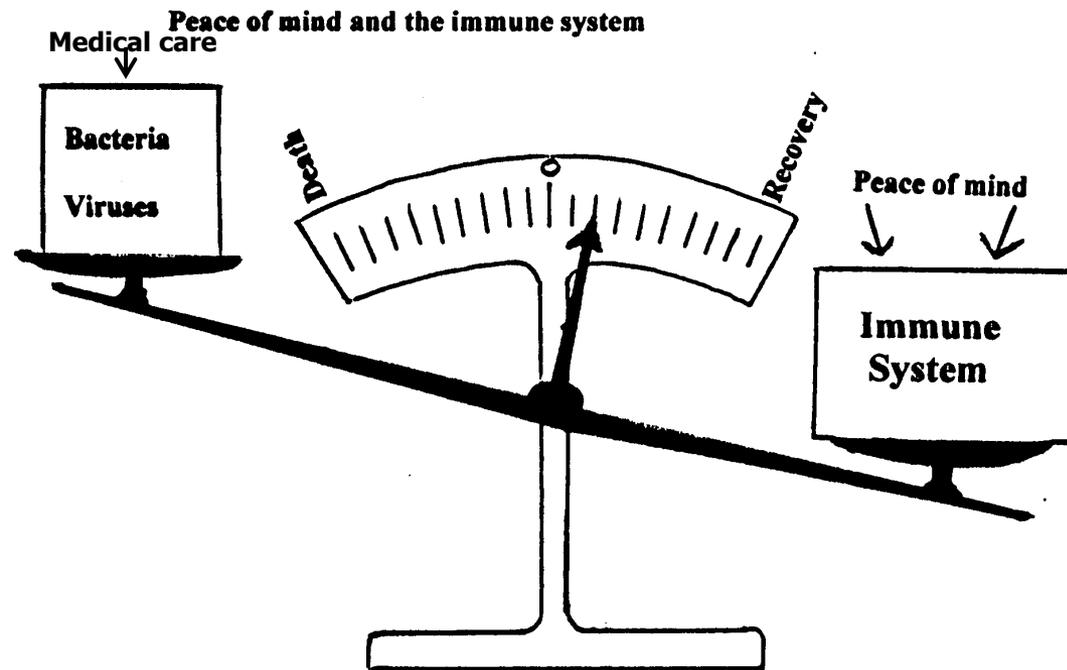


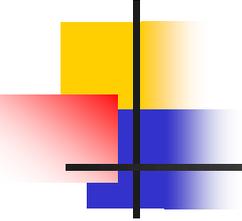
# BENEFITS OF MEDICAL CARE

Medical care and the fight against disease



# BENEFITS OF INNER HEALING

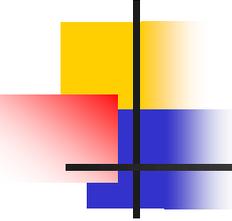




# INTEGRATED MEDICINE

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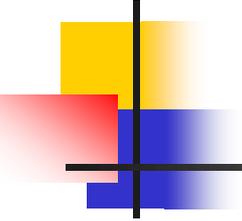
- The Bible and science agree
- We must continue to use the best medical technology to care for the body
- We need to learn how to care for soul and spirit as Jesus did and thus strengthen the immune system of sick persons



## A man with diabetes type 2

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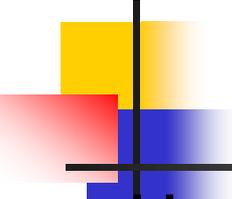
- Impossible to get sugar under control
- Dysfunctional marriage and life style
- Came to faith and found resolution of major inner problems
- Reconciliation with his wife
- Sugar returned to normal and diabetes has not recurred
- How do you explain this physiologically?



# CONCLUSIONS

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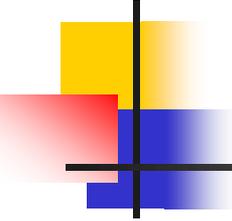
- Heart and body are inseparable dimensions of the person
- Through faith and prayer Jesus can heal the heart
- Healing of the heart **FAVORS** healing of the body



# Bibliography

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- Norman Cousins, "The Anatomy of an Illness as Described by a Patient," W.W.Norton, 1979
- Cousins, "The Healing Heart," W.W.Norton, 1983
- Cousins, "Head First - The Biology of Hope," Penguin Books, 1989
- Dale Matthews, "The Faith Factor," Viking, 1998
- Harold Koenig and Harvey Jay Cohen "The Link Between Religion and Health," Oxford, 2002
- Books by Dr. Paul Tournier



# Question for discussion

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- How do you see this fitting into your practice situation?