Everyday Stress:

The Biology of Anxiety

By

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The biggest mistake that one can make is the belief that mental and physical health is a matter of volition. The belief that if you "just try hard enough" you will not be addicted, obese, depressed...etc.

Some illnesses may be preventable with a proper life-style. Some illnesses may be systemic because of genetic inheritance precipitated by a sleep disorder. It is my belief that they are an immune response to the mitigating factors of anxiety. I could be wrong, but I doubt it.

"I have discovered a truly marvelous demonstration of this proposition which this margin is too narrow to contain."

Pierre de Fermat

17th Century Mathematician

Conjecture:

An opinion or idea that is not based on

definite knowledge and is formed by guessing.

Oxford Advanced

Learners Dictionary

Adrenaline and Cortisol:

Adrenaline and cortisol are

the main bio-chemicals for anxiety.

They work in conjunction.

Serotonin and Dopamine:

Serotonin and dopamine are

the main bio-chemicals for pleasure.

They work in conjunction.

The Adrenaline-Cortisol Gate:

The Adrenaline-Cortisol Gate moves inversely

to The Serotonin – Dopamine Gate

relative to the anxiety presented.

The Serotonin-Dopamine Gate:

The Serotonin-Dopamine Gate moves inversely

to The Adrenaline-Cortisol Gate

relative to the relief provided.

The Adrenaline-Cortisol Gate:

Behavioral changes must be

maintained for two weeks

to begin affecting anxiety

The Serotonin-Dopamine Gate:

Behavioral changes must be

maintained for two weeks

to begin affecting anxiety.

The Adrenaline-Cortisol Threshold:

The Relative Distress necessary

to illicit a Stress Reaction.

The Relative Relief necessary

to illicit a Stress Response.

The Serotonin-Dopamine Threshold:

The Relative Relief necessary

to illicit a Stress Response.

The Relative Distress necessary

to illicit a Stress Reaction.

The Biology of Impulse:

The lower our Adrenaline and Cortisol Threshold,

the more impulsive we become.

The Biology of Addiction:

The lower The Adrenaline and Cortisol Threshold,

the greater our probability of addiction.

The Biology of Impulse Control:

When properly trained to perform a task

our Adrenaline and Cortisol Threshold rises

while our Serotonin and Dopamine Threshold rises

until it becomes reflexive.

The Hormonal Effect of Anti-Depressants:

The drugs known as Selective Serotonin Reuptake

Inhibitors (S.S.R.I.) do not affect serotonin reuptake,

but affects adrenaline and cortisol production and absorption.

The Origin of Addiction:

Addiction is the result of

a low Adrenaline – Cortisol Threshold

The Origin of Asthma:

A low Adrenaline-Cortisol Threshold

is responsible for asthma.

The Origin of Attention Deficit Disorder:

Attention Deficit Disorder is the result of

a low Adrenaline-Cortisol Threshold.

The Origin of Autism:

The inability of adrenaline and cortisol levels

to rise or lower in the brain.

The Origin of Birth Defects:

Exposure to stimulants or depressants affects

fetal neural and immune development.

The Origin of Depression:

Depression may not be "all in our head."

There are many illnesses that mimic

the symptoms of depression.

The Origin of Genetic Disease:

Inheritable D.N.A. is

affected by disease.

The Origin of Insomnia:

Low levels of inflammation

are responsible for insomnia.

The Origin of Manic Depression:

The Adrenaline-Cortisol Gate

vacillates without regulation.

The Origin of Obesity:

The lower the levels of

human growth hormone

and insulin growth factor

the higher the levels of

ghrelin and leptin.

The Origin of Prader-Willis Syndrome:

The correlation between

human growth hormone

and insulin growth factor

the correlation between

ghrelin and leptin.

The Origin of Schizophrenia:

The inability of adrenaline and cortisol levels

to lower in the brain.

The Result of Unmitigated Anxiety:

Excessive adrenaline and cortisol levels

produce inflammation on the

genetic and cellular level to produce disease.

Inflammation and Addiction:

Intoxicants last longer with less consequences

for those with a low Adrenaline and Cortisol Threshold.

Inflammation and Appearance:

Excessive levels of adrenaline and cortisol adversely affect our skin's appearance.

Inflammation and Change:

Excessive levels of adrenaline and cortisol

must be gradually reduced over time.

Inflammation and Concentration:

Excessive levels of adrenaline and cortisol

promote inordinate concentration.

Inflammation and Diabetes:

Artifically lowering The Adrenaline – Cortisol Threshold

increases the probability of diabetes and heart disease.

Inflammation and Diet:

Excessive levels of adrenaline and cortisol adversely affect ghrelin and leptin levels.

Inflammation and Digestion:

Excessive levels of adrenaline and cortisol

affect gastric function.

Inflammation and Exercise:

Excessive levels of adrenaline and cortisol adversely affect muscle strength and endurance.

Inflammation and Fatigue:

Excessive levels of adrenaline and cortisol

produce fatigue.

Inflammation and Fear:

Excessive levels of adrenaline and cortisol

accompany fear.

Inflammation and Fertility:

Excessive levels of adrenaline and cortisol

reduce or stop fertility.

Inflammation and Guilt:

Excessive levels of adrenaline and cortisol

accompany guilt.

Inflammation and Hearing:

Excessive levels of adrenaline and cortisol

affect hearing.

Inflammation and Isolation:

Excessive levels of adrenaline and cortisol

accompany forced isolation.

Inflammation and Mental Health:

Excessive levels of adrenaline and cortisol

destroy mental health.

Inflammation and Memory:

Excessive levels of adrenaline and cortisol adversely affect even basic memory.

Inflammation and Mental Function:

Excessive levels of adrenaline and cortisol adversely affect serotonin and dopamine uptake.

Inflammation and Nutrition:

Proper nutrition reduces inflammation.

Inflammation and Perception:

Excessive levels of adrenaline and cortisol adversely affect our perception of time.

Inflammation and Physiology:

Excessive levels of adrenaline and cortisol adversely affect the cardiovascular, respiratory and immune systems.

This inflammation leads to infection and allergies.

Inflammation and Pregnancy:

Excessive levels of adrenaline and cortisol adversely affect fetal neural and immune development.

Inflammation and Sex:

Excessive levels of adrenaline and cortisol adversely

affect sexual function.

Inflammation and Sleep:

Excessive levels of adrenaline and cortisol adversely affect the quality and length of our sleep.

Inflammation and Violence:

Excessive levels of adrenaline and cortisol

are the pre-cursor to violent behavior.

Inflammation and Vision:

Excessive levels of adrenaline and cortisol

refract our vision.

The Sleep Deficit and Diet:

The lack of sufficient sleep leads to

surging adrenaline and cortisol levels with

sinking serotonin and dopamine levels.

The body will crave unnecessary levels

of carbohydrates and stimulants to compromise.

The Impact of Sleep Deficit:

The vicious cycle of stimulant use begins

with insufficient sleep.

The Treatment of Sleep Disorders:

Before the prescription of medication for

Attention Deficit, Anxiety and Depression.

The Quality of Sleep:

The quality of our physical activity affects

the quality of our sleep.

Anti-Inflammatories and Sleep:

Anti-inflammatories disturb

and disrupt sleep.

The Best Time to Sleep:

Optimum human growth hormone and insulin growth factor release occurs from the early evening until the early morning.

Growth Hormone and Depression:

Lack of growth hormone and insulin growth factor

from improper sleep and lack of exercise

only compounds the physical reality.

The Raising or Lowering of Anxiety:

Relative Distress is raised or lowered in

an inverse proportion to Relative Relief.

The Diffusion of Depressants:

Depressants artificially lowers

the Adrenaline-Cortisol Threshold,

the Serotonin-Dopamine Threshold

while raising the natural threshold.

The Diffusion of Depressants:

Depressants artificially raise the Ghrelin Threshold and artificially lower the Leptin Threshold while the natural Ghrelin Threshold is lowered and the natural Leptin Threshold is raised.

Adrenaline and Cortisol Resistance:

Precipitous lowering of adrenaline and cortisol

due to sex, drugs or alcohol will result in a precipitous rise.

This is due in part to inflammation.

The brain will longer process anxiety properly

with continued use.

The Diffusion of Stimulants:

Stimulants artificially raise

The Adrenaline-Cortisol Threshold,

The Serotin-Dopamine Threshold

while lowering the natural threshold.

The Diffusion of Stimulants:

Stimulants artificially lower the Ghrelin Threshold and artificially raise the Leptin Threshold while the natural Ghrelin Threshold is raised and the natural Leptin Threshold is lowered.

Serotonin and Dopamine Resistance:

Precipitous rises in serotonin and dopamine

due to sex, drugs or alcohol will result in a precipitous drop.

This is due in part to inflammation.

The brain will no longer process pleasure properly

with continued use.

Acne as an Immune Response:

Acne may be an immune response to

Addiction as an Immune Response:

Addiction may be an immune response to

Agoraphobia as an Immune Response:

Agoraphobia may be an immune response to

Allergies as an Immune Response:

Allergies may be an immune response to

Allergies as an Immune Reponse:

Allergies may be co-related to obesity

as an immune response to

Anorexia as an Immune Response:

Anorexia may be an immune response to

Arthritis as an Immune Response:

Arthritis may be an immune response to

Asthma as an Immune Response:

Asthma may be co-related to

Attention Deficit Disorder

as an immune response to

Attention Deficit Disorder as an Immune Response:

Attention Deficit Disorder may be an immune response

Attention Deficit Disorder as an Immune Response:

Attention Deficit Disorder may be co-related

to addiction as an immune response to

Binge Behavior as an Immune Response:

Binge Behavior may be an immune response to

Body Dysmorphia as an Immune Response:

Body Dysmorphia may be an immune response to

Bulimia as an Immune Response:

Bulimia may be an immune response to

Chronic Fatigue Syndrome as an Immune Response:

Chronic Fatigue Syndrome may be

an immune response to

Depression as an Immune Response:

Depression may be an immune response to

Digestive Problems as an Immune Response:

Digestive Problems may be an immune response to

Epilepsy as an Immune Response:

Epilepsy may be an immune response to

Heart Disease as an Immune Response:

Heart Disease may be an immune response to

High Blood Pressure as an Immune Response:

High Blood Pressure may be an immune response to

Impulsivity as an Immune Response:

Impulsivity may be an immune response to

Insomnia as an Immune Response:

Insomnia may be an immune response to

Manic Depression as an Immune Response:

Manic Depression may be an immune response to

Migraine Headaches as an Immune Response:

Migraine headaches may be an immune response to

Myopia as an Immune Response:

Myopia may be an immune response to

Narcolepsy as an Immune Response:

Narcolepsy may be an Immune Response to

Obesity as an Immune Response:

Obesity may be an immune response to

Obsessive Compulsive Disorder as an Immune Response:

Obsessive Compulsive Disorder may be an immune response to

Obsessive Compulsive Disorder as an Immune Response:

Obsessive Compulsive Disorder may be

co-related to Schizophrenia

as an immune response to

Panic Attacks as an Immune Response:

Panic attacks may be an immune response to

Post-Partum Depression as an Immune Response:

Post-Partum Depression may be an immune response to

Post Traumatic Stress Disorder as an Immune Response:

Post Traumatic Stress Disorder may be an immune response to

Post Traumatic Stress Disorder as an Immune Response:

Post Traumatic Stress Disorder may be

co-related to Autism as

an immune response to

Prader-Willis Syndrome as an Immune Response:

Prader-Willis Syndrome may be an immune response to

Schizophrenia as an Immune Response:

Schizophrenia may be an immune response to

Stuttering as an Immune Response:

Stuttering may be an immune response to

Sudden Infant Death Syndrome as an Immune Response:

Sudden Infant Death Syndrome may be

an immune response to

Tourettes Syndrome as an Immune Response:

Tourettes Syndrome may be an immune response to

The Immune Response to Artificial Sweeteners:

Artificial Sweeteners prompt

a detrimental immune response.

Oral Health, Dental Health and Mental Health:

Improper oral and dental health prompts

an immune response

detrimental to mental health.

The Evidence of Mental Illness:

Mental illness has

identifiable immune markers.

The Genetic Pre-Disposition of the Immune Response:

The immune response to excessive levels

of adrenaline and cortisol is

genetically pre-disposed relative to

age and experience.

The Resolution of the Immune Response:

Vitamin C may protect against

The Immune Response of Neurological and Muscular Disorders:

Primates may hold the solution to

neurological and muscular disorders.

The Immune Response to Adrenaline and Cortisol:

The mitigating factors of anxiety affect

the dispersal of adrenaline and cortisol.

The Immune Response to Serotonin and Dopamine:

The mitigating factors of anxiety affect

the dispersal of serotonin and dopamine.

The Immune Response to Ghrelin and Leptin:

The mitigating factors of anxiety affect

the dispersal of ghrelin and leptin.

The Proper Immune Response:

Human growth hormone and insulin growth factor prevent improper immune responses to

The Treatment of Mental Illness:

Selective Immune Suppressants and

Selective Immune Enhancers may

be a possible treatment to prevent

the immune response to

The Probability of The Immune Response:

The lower The Adrenaline and Cortisol Threshold

the greater the probability of

a detrimental immune response to

The Probability of Memory:

The higher The Adrenaline and Cortisol Threshold

the greater the probability of recollection.

The Probability of Mental Illness:

The lower The Adrenaline and Cortisol Threshold

the greater the probability of

a detrimental immune response to

The Probability of Obesity:

The lower The Adrenaline and Cortisol Threshold

the greater the probability of obesity.

The Probability of Post Traumatic Stress Disorder:

The lower The Adrenaline and Cortisol Threshold

the greater the probability of

Post Traumatic Stress Disorder.

The Probability of Risk:

The greater The Adrenaline and Cortisol Threshold

the greater the probability of high risk behavior.

The Probability of Violence:

The lower The Adrenaline and Cortisol Threshold

the greater the probability of violent behavior.

The Perception of Time:

Anxiety disturbs and disrupts

our perception of time.

The Zenith of Emotion:

Our most rash decisions are made at

the zenith of our emotions.

Ghrelin and Leptin:

Ghrelin is the bio-chemical responsible for fullness.

Leptin is the bio-chemical responsible for hunger.

They operate in an inverse proportion.

The Ghrelin Gate:

Dietary changes must be maintained for two weeks

to begin effecting appetite.

The Leptin Gate:

Dietary changes must be maintained for two weeks

to begin effecting appetite.

The Ghrelin Threshold:

The amount of time without food

to spur hunger.

The Leptin Threshold:

The amount of food necessary

to spur fullness.

Stomach Volume and Hunger:

The feeling of "fullness" last long after

the stomach has been emptied.

Stomach Volume and Liquid:

Constantly drinking water neither

satiates hunger nor quenches thirst.

In fact, it exacerbates both.

Stomach Volume and Obesity:

Stomach volume does not determine obesity.

The Arrival of Appetite:

Elevated levels of ghrelin cause

surging levels of adrenaline and cortisol.

The Commencement of Appetite:

Elevated levels of leptin cause

surging levels of serotonin and dopamine.

Antacids and Stomach Function:

Antacids prompt and promote

ghrelin production and leptin reduction.

The Effect of Anxiety on Hunger:

Surging adrenaline and cortisol levels cause

ghrelin levels to surge

and leptin levels to plummet.

The Identification of Improper Foods:

Hydrogenated oils,

high fructose corn syrup,

and artificial sweeteners are

detrimental to mental health.

The Biology of Dieting:

To diet is more than simple subtraction of weight.

The diet itself when done properly over an extended period of time affects the promotion and distribution of our hunger and fullness.

The Origin of the Stress Response:

If food has always been your stress reducer since childhood, the corresponding hunger and fullness chemicals never got a chance to develop properly.

The Set Point of Obesity:

A fifteen percent increase over our natural body weight triggers ghrelin and leptin levels into disarray.

Healthy Weight Loss:

The maximum efficiency of healthy weight loss is one thousand calories per day.

This is best achieved by a combination of diet and exercise.

The Reflex of Eating:

The more we see,

the more we eat.

Sodium Levels and Hunger:

Low levels of sodium prompt

ghrelin to spike.

Leptin and Metabolism:

Elevated levels of leptin

slows metabolism.

The Function of Sleep on Appetite:

Leptin levels increase

with excessive sleep.

The Role of Fiber:

Dietary fiber reduces

ghrelin levels.

The Treatment of Morbid Obesity:

Chemotherapy may end the immune response

responsible for morbid obesity.

The Essence of Abuse:

Abuse in any form steals

the identity of the abused.

The Effects of Abuse:

Physical and sexual abuse

raises testosterone

while lowering

The Adrenaline and Cortisol Threshold.

The Essence of Addiction:

To never be satisfied.

The Effects of Addiction:

To never get a moments rest.

The Effects of Anesthesia:

Anesthesia stops the perception of pain.

The Effects of Anesthesia:

Anesthesia controls the production and absorption

of adrenaline and cortisol.

The Essence of Anorexia:

The mirror and the scale lie.

The Effects of Anorexia:

The body starves

alongside the soul.

The Essesence of Anti-Anxiety Drugs:

The promotion of apathy.

The Effects of Anti-Anxiety Drugs:

The immune response is

lessened by reducing

adrenaline and cortisol

production and absorption.

The Essence of Artificial Sweeteners:

The dietary equivalent of

something for nothing.

The Effects of Artificial Sweeteners:

Artificial sweeteners paradoxically

prompt and promote diabetes.

The Essence of Attention Deficit:

Constant anxiety when sustained

concentration is necessary.

The Effects of Attention Deficit:

The failure to produce a sustained

beneficial Stress Response.

The Essence of Bulimia:

Destructive eating without

perceived consequences.

The Effects of Bulimia:

The pain is never purged.

The Essence of Concentration:

Concentration is the result of

a High Adrenaline and Cortisol Threshold.

The Effects of Concentration:

Concentration is a hypnotic meditation.

The Essence of Consciousness:

We can only possess a

certain amount of awareness.

The Effects of Consciousness:

Our genes affect

and are affected

by our consciousness.

The Essence of Depressants:

Depressants promote amnesia

to the point of fixation.

The Effects of Depressants:

Depressants lower adrenaline and cortisol levels in an inverse proportion to serotonin and dopamine.

This lowers our resistance to anxiety.

The Essence of Depression:

A slow descent into darkness.

The Effects of Depression:

What once was routine

becomes monumental.

The Essence of Evil:

Evil makes the

unthinkable, presentable.

The Effects of Evil:

Some use every euphemism

to describe it.

The Essence of Expectation:

We demand how and when

we should feel.

The Effect of Expectation:

The conclusion of suspense is

subtle, not spectacular.

The Essence of Low Carbohydrate Diets:

The belief that certain foods

have no consequences.

The Effects of Low Carbohydrate Diets:

The lack of carbohydrates

slows down ghrelin production.

The Essence of Pain:

Once pain is instituted

we fixate on relief.

The Effects of Pain:

Rising adrenaline and cortisol levels

accompany pain.

The Essence of The Placebo Effect:

A believable attempt

at treatment.

The Effects of The Placebo Effect:

Placebos lower our adrenaline

and cortisol production.

The Essence of Pornography:

Pornography is a

dream like depiction

of human sexuality.

The Effects of Pornography:

Sexual dysfunction is

the result of pornography.

The Essence of Post Traumatic Stress Disorder:

The mind cannot forget

the trauma that has occurred.

The Effects of Post Traumatic Stress Disorder:

Post Traumatic Stress Disorder

Paradoxically lowers

The Adrenaline and Cortisol Threshold.

The Essence of Proper Diet:

To increase the frequency,

while lowering the intensity.

The Effects of Proper Diet:

The parity between

ghrelin levels and

leptin levels.

The Essence of Proper Sleep:

To wake up prepared

for the day.

The Effects of Proper Sleep:

Proper sleep restores

human growth hormone and

insulin growth factor.

The Essence of Sleep Medication:

The ability to fall asleep

without effort.

The Effects of Sleep Medication:

Growth hormone is not fully released

when sleep is artificially induced.

The Essence of Stimulants:

Stimulants promote concentration

to the point of fixation.

The Effects of Stimulants:

Stimulants raise serotonin and dopamine levels

in an inverse proportion to adrenaline and cortisol.

This lowers our resistance to anxiety.

The Essence of Warning:

To prevent an

undesired outcome.

The Effects of Warning:

Warning may actually make

the behavior desirable.

The Arrival of Addiction:

Obsession is overwhelmed

temporarily by compulsion

to the point of fixation.

The Departure of Addiction:

Compulsion is overwhelmed

temporarily by obsession

to the point of fixation.

The Arrival of Boredom:

When we find ourselves

in unproductive behavior.

The Departure of Boredom:

We must pursue productive activity where

the outcome is not automatically guaranteed.

The Arrival of Compulsion:

Any action or inaction that

relieves our obsession.

The Departure of Compulsion:

The realization that

no relief exists.

The Arrival of Depression:

When anxiety beomes

unavoidable and inescapable.

The Departure of Depression:

When we accept the world as it is,

and then work to improve it.

The Arrival of Fixation:

The state of total avoidance.

The Departure of Fixation:

What was once avoided

is now unavoidable.

The Arrival of Manic-Depression:

A chemical imbalance in the body affects

The Adrenaline and Cortisol Gate.

The Departure of Manic-Depression:

A readjustment of bodily chemical affects

The Adrenaline and Coritsol Gate.

The Arrival of Obsession:

In lieu of meaning,

we pursue worry.

The Departure of Obsession:

The conclusion to what is

disturbing you and why.

The Placebo Effect:

Anxiety lessens or leaves when

an attempt at treatment has been made.

The Difference Between Pain and Despair:

Panic is a Stress Reaction.

Despair is a Stress Response.

The Difference Between Habit and Addiction:

Habit is a Stress Reaction.

Addiction is a Stress Response.

The Anxiety Prism:

Our vision is refracted during

times of anxiety.

The Stress Nexus:

The origin and arrival of anxiety.

The Relief Nexus:

The origin and arrival of relief.

The Unrequited Obsession:

Some obsessions are so nebulous as to be

beyond comprehension or satisfaction.

The Acceptance of Obsession-Compulsion:

Society decides what is acceptable.

The Creation of Compulsion:

Compulsion is the

logical conclusion

to obsession.

The Consequences of Medication:

Medicine and medications work

to cure a potential ailment.

If anxiety is the ailment,

why is medication the cure?

The Fixation of Consciousness:

Every need presented can just be a momentary fixation

that can be relieved.

When we are through with fixation, we self-actualize

if only for a moment.

The Perception of Time:

Anxiety disturbs and disrupts

our perception of time.

The Concept of Finite Pleasure:

The threshold of pleasure is self-limited

before it becomes detrimental.

The Concept of Innate Guilt:

An individual will innately feel guilt

regardless of culture.

The Concept of Pronounced Failure:

When an attempts turns to dross,

no further attempt will be made.

The Concept of Relative Depression:

The onset of depression is relative to

our age and our experience.

The Absence Paradox:

The absence of pleasure feels like pain.

The absence of pain feels like pleasure.

The Apology Paradox:

Sometimes when we apologize, we realize that

"there is nothing we can say."

That does not mean, we should say nothing.

The Bio-Chemistry Paradox:

Bio-chemistry affects behavior.

Behavior affects bio-chemistry.

The Expectation Paradox:

Nothing is still an expectation.

The Greatness Paradox:

We all have

the potential

for goodness.

The Intimacy Paradox:

Implied intimacy

does not

denote intimacy.

The Perfection Paradox:

The more you focus on being perfect,

the less likely you are to succeed.

The Question Paradox:

Not every question

has an answer.

The Reward Paradox:

The absence of a reward is a punishment.

The absence of a punishment is a reward.

The Straight-Jacket Paradox:

Forced restraint makes

you look insane.

The Threshold Paradox:

We pursue pleasure to

mask the pain that

living brings.

The Time Paradox:

The more time we have,

the less time we have.

The Violence Paradox:

You can not hurt others,

without hurting yourself.

The Irony of Addiction:

The more we fixate on feeling pleasure,

the less we feel.

The Irony of Anxiety:

We chase people away when

we need them the most.

The Irony of Consciousness:

The less we focus on ourselves,

the more we become ourselves.

The Irony of Hypochondria:

The more we fixate on being sick,

the sicker we get.