Ketosis: The Lost Metabolic State

For optimal metabolic and gut health

Presented by
Carole Freeman, Certified Nutritionist & Keto Diet Implementation Expert

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You’re passionate about healing and want to know about any and all safe and effective therapies that could transform the health of your patients.
You’re a health care practitioner that is frustrated by slow or no results when treating obesity, diabetes, pre-diabetes, hyperlipidemia, allergies, autoimmune conditions, chronic pain, adrenal fatigue, and hormonal imbalances.
You’re ready to learn more.

You’ve heard stories about health transformations with a keto diet, but you’re still a little skeptical, so you’re ready to learn more.
You’ve ready to try a keto diet yourself before implementing with you patients, but are confused, overwhelmed, and unsure of the right way to do it.
You’re a health care practitioner that struggles with cash flow, and are looking for a safe and effective therapy to add to your practice to bring in an additional 5- to 6-figures this year.
Who am I?

Carole Freeman, MS, CN, CHt

Education

• MS in Nutrition and Clinical Health Psychology
  Bastyr University
• BS in Nutrition Bastyr University
• Certification in Clinical Hypnotherapy
• Culinary skills, neuronutrient therapy, herbal medicine

Washington State Credentials: CN (Certified Nutritionist), Registered Hypnotherapist

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What You’ll Learn Today

What is Ketosis and why it is a lost metabolic state
What You’ll Learn Today

How we got to the point where 70 - 80% of the population is insulin resistant
What You’ll Learn Today

Insulin resistance as the most probable cause of the most common chronic diseases and symptoms that you’ll see in your patients.
What You’ll Learn Today

The 5 key health benefits of ketosis
What You’ll Learn Today

The basics of a well-formulated ketogenic diet
What You’ll Learn Today

Clinical applications and contraindications
I’ll teach you as much as I can today in the limited time we have together and for those of you that want to take it further, I promise to tell you how to do that.

We have a lot to cover, so please hold questions to the end.
My Journey to a Keto Diet
The Accident...
My Journey to Keto

2007 to 2012

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A Fat Nutritionist
The Accident...
I was in Constant PAIN

Chronic Regional Pain Syndrome

• Severe edema
• Extraordinary burning pain that spreads
• Hypersensitivity to touch and temperature
• Abnormal hair growth
• Variations in skin temperature
And Then I Got Even Sicker

Post-traumatic Hypopituitarism
• Adrenal fatigue
• Constant lightheadedness
• Migraines
• Intolerant to light and sound
• Memory and cognitive problems
• Hypoglycemia
• Chronic low grade fever

• Insomnia
• Hypertension
• Clumsiness
• GERD
• Gastroparesis
• Constant hunger and carb cravings
• And doctors had no answers…
I Turned to Nutrition...

- I remembered a Ketogenic Diet from grad school for epilepsy
- Then I found researchers and clinicians
  - Dr. Peter Attia
  - Drs. Phinney and Volek
    - The Art & Science of Low Carbohydrate Living
  - Dr. Dom D’Agostino
  - Dr. Eric Westman
  - Dr. Adam Nally
- I had hope...
I Committed to Keto
Within Days...
My Health Transformation

- 62% reduction in my CRP within 2 weeks
- No more migraines
- No more pain and swelling
- Boundless energy
- Normal appetite and digestion
- Fantastic Sleep
- Normal blood pressure
- All my symptoms resolved
Healthy Body and Mind

• 10 inches off my waist
• 60 lbs lost in about 6 months
• No more metabolic syndrome
• Lifelong depression lifted
• And things just continued to improve…
“Keto Carole” as seen on...
Keto Implementation Expert

• Fast-Track to Keto Success Program
  • 9-week intensive educational, coaching, and support program

• 3-Day Keto Practitioner Training Intensive
  • For current or future health care practitioners to learn how to apply a well-formulated ketogenic diet clinically

• 6-Figure Keto Practitioner Mentorship
  • Everything a practitioner needs to successfully implement a keto diet in their practice, including turn-key, licensed use of my FTKS program, complete marketing training, and ongoing coaching
What is Ketosis?

The Lost Metabolic State
Keto Myths

• Ketosis is dangerous!
  • Not ketoacidosis
• A high protein diet is bad for the planet and our kidneys!
• Our brains need 130 grams of carbs per day!
• We need carbs for energy!
• We need tons of fruits and veggies for fiber and antioxidants and GI health!
• You can’t stay on a keto diet long-term because it’s dangerous!
• You can’t stay on a keto diet because it’s highly unpalatable!
• You will ruin your metabolism!
What is Ketosis?

• Carb metabolism
• Carbs are always used first
• Carbohydrate (and protein) ingestion stimulates an insulin response, which signals storage
• When carbs are absent in diet the body turns to glycogen stores, which can last for about 3-5 days
• When this is depleted, then the body can access fat storage for fuel
• Ideally, we should have metabolic flexibility
What is Ketosis?

• When carbs (and protein) are absent in diet, insulin is low
• This allows fat to be accessed from storage for fuel
• When the body utilizes fat as it’s primary fuel source, ketone bodies are produced as a byproduct
• Ketone bodies are an alternate a fuel source PLUS they have numerous health benefits
• Ketosis is the state in the body where ketone bodies are measurable in the blood
• Keto to Ketosis: insulin is the opposite of ketosis
Lost Metabolic State

• Carbs used to be seasonal and scarce
• Fruits and veggies were not very sweet
• Most of the year we were in ketosis, occasionally using carbs for fuel and fat storage
• Only need 4 -5 grams of glucose in our blood at any one time
• Babies are born in ketosis
• Children easily go in and out
• We should have metabolic flexibility
How Did We Lose It?

• Fat is bad
• Eat 7 - 11 servings of grains per day
• Eat every 2-3 hours
• How many times per day do people eat carbs excess carbs now?
The Development of Insulin Resistance

- Insulin should be an occasional signal
- Body perceives is like an emergency
- But with excessive frequency and duration the cells begin to ignore
- Pancreas responds by releasing even more insulin
- Results in insulin resistance: excessive production + reduced cellular response
- Insulin isn’t benign, it is actually pro-inflammatory

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Insulin Resistance

- Chronic Weight Gain
- Constant hunger, cravings, low energy
- Metabolic syndrome: HTN, obesity, hyperglycosemia, hyperlipidemia
- Type 2 diabetes
- Cancer
- Migraines, Epilepsy, Dementia, Alzheimer’s
- Chronic pain, chronic fatigue
- Endocrine issues, adrenal fatigue

- Hormone problems: PMS, PCOS, Peri-menopause, low testosterone, infertility
- Depression, anxiety
- Mental fogginess, memory, concentration, ADD, ADHD
- Acne, allergies (food and environmental)
- Digestion issues: heartburn, gas, bloating, diarrhea, constipation
- Auto-immune disease
- So much more…
5 Key Health Benefits of Ketosis
#1: Superior Fuel Source

- Ketones are an efficient and potent energy source
  - 28% more energy from ketones than from any other macronutrient
- Boundless energy from fat stores
- No need to eat every 2 – 3 hours
- Even a lean person has weeks’ worth of energy reserves from fat
- Elite athletes are making the transition to fat-burning performance
  - Kobe Bryan, Lakers
  - Phil Mickelson
#2: Anti-inflammatory

- Insulin is pro-inflammatory
- A Keto Diet reduces inflammation at least 3 ways:
  - Low insulin
  - Ketones are anti-inflammatory
  - Removing pro-inflammatory grains and sugar
- It’s more effective than AIP for:
  - Pain and swelling
  - Auto-immune conditions
  - CVD
#3: Healing

- Anti-oxidant
  - Ketones are anti-oxidant
  - Insulin suppresses our own powerful anti-oxidant system
- Autophagy
  - Anti-aging, cancer
  - Tissue healing
- High fat diet
  - Resolves fat-soluble vitamin deficiencies
  - Osteopenia and osteoporosis
  - Soft skin

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#4: Sustainable Weight Loss

- Most diets = tired + hungry + irritable
- Appetite suppressant
  - Even works with, and heals, leptin resistance
- Metabolic advantage
- Stable blood sugars
  - No more cravings
  - No more constant hunger
  - No “hangry”
#5: Happy Brain

- Memory and cognitive function
- Alzheimer’s and dementia
- Anxiolytic
  - Anxiety & Depression
  - Sense of calm & peace
BONUS #6: Happy Gut

• A) Anti-inflammatory
• B) GI Rest
• C) Tissue Healing
• D) Provides optimal gut bacteria food
Butyric Acid

- BTA
- Short-chain, saturated fatty acid
- Found in ghee, butter (3-4%), butter oil, and animal fats
- Also made by bacteria in colon (green leafies)
- Favorite fuel source for enterocytes
BONUS #6A: Anti-inflammatory

• Ketones
• Lower insulin
• Elimination of inflammatory grains and sugars
• Butyric acid
• Studies show broad anti-inflammatory effects, including improved immune function

BONUS #6B: GI Rest

• Blood sugar balance and fat metabolism decrease frequency of eating
• Historically, we’ve never eaten every 2-3 hours!
• Intermittent Fasting is a natural byproduct of ketosis
• Longer fasts are much easier when already in ketosis
BONUS #6C: Tissue Healing

• Ketones
• GI rest
• Butyric Acid
• Multiple studies show colon cancer prevention and treatment
  • 2011 study in *International Journal of Cancer* shows BTA increases apoptosis (programmed cell death) of cancer cells
BONUS #6D: Optimal Food

• Keto Diet provides both BTA and fiber to make BTA
• Beneficial bacteria ferment fiber to make BTA, then use BTA for energy
• Small intestine and colon cells use BTA for energy
A Well-Formulated Ketogenic Diet
Well-Formulated

• Starvation ketosis
• Vs. Nutritional ketosis
• Well-formulated ketogenic diet = not calorie restricted and not low-fat
• There are approaches out there that claim to be a “ketogenic diet,” but well-formulate is essential!
• Low-fat and/or restricted calories will slow metabolism and additionally are not sustainable due to nutrient deficiencies
Well-Formulated

• “Macros”
  • Carbs: 20 grams or less
  • Protein: 60 – 80 grams women, 75 – 90 grams men
  • Fat: 60 – 90 % of calories from fat (full fat foods, eat to satiety)
  • Plus salt! 4 – 5 grams sodium total per day
• Adjusted to address degree of IR
• May need advanced techniques like IF and longer fasting if severe
Clinical Application & Contraindications
Clinical Application

• Obesity
• Constant hunger, cravings, low energy
• Metabolic syndrome: HTN, obesity, hyperglycosemia, hyperlipidemia
• Type 1 and 2 diabetes
• Cancer
• Migraines, Epilepsy, Dementia, Alzheimer’s
• Chronic pain, chronic fatigue
• Endocrine issues, adrenal fatigue

• Hormone problems: PMS, PCOS, Peri-menopause, low testosterone, infertility
• Depression, anxiety
• Mental fogginess, memory, concentration, ADD, ADHD
• Acne, allergies (food and environmental)
• GI Health: heartburn, gas, bloating, IBS, IBD, Crohn’s
• Auto-immune disease
• So much more…
Contraindications & Precautions

Contraindications

• Orthorexia
  • Type A, chronic restrictors, normal or underweight

• Active eating disorder

• Anyone looking for a quick fix, fad diet

• Bingeing or cheating can lead to insulin spikes that can trigger kidney stones, gall stones, pancreatitis

Precautions

• History of anorexia nervosa or bulimia

• Active or history of gall stones

• History of kidney stones

• Gout

• IBS and IBD

• Ulcerative colitis

• Medications, especially diabetes, HTN
  • Insulin cut in half first day
Ready for more?

• How I can help
• Let’s continue the keto conversation!
• Get a FREE Keto Consult
• 60-minute phone call
• Full assessment
• See if keto is the right solution for you
Who is this for?

- You need to qualify:
- You’re ready to use keto to heal yourself
- You’re ready to learn how to use it safely and effectively in your practice
- You’re ready to add an extra 5-6-figures to your revenue over the next year

KetoCarole.com/schedule-now