SAMPLE RECODE REPORT

Report Cover

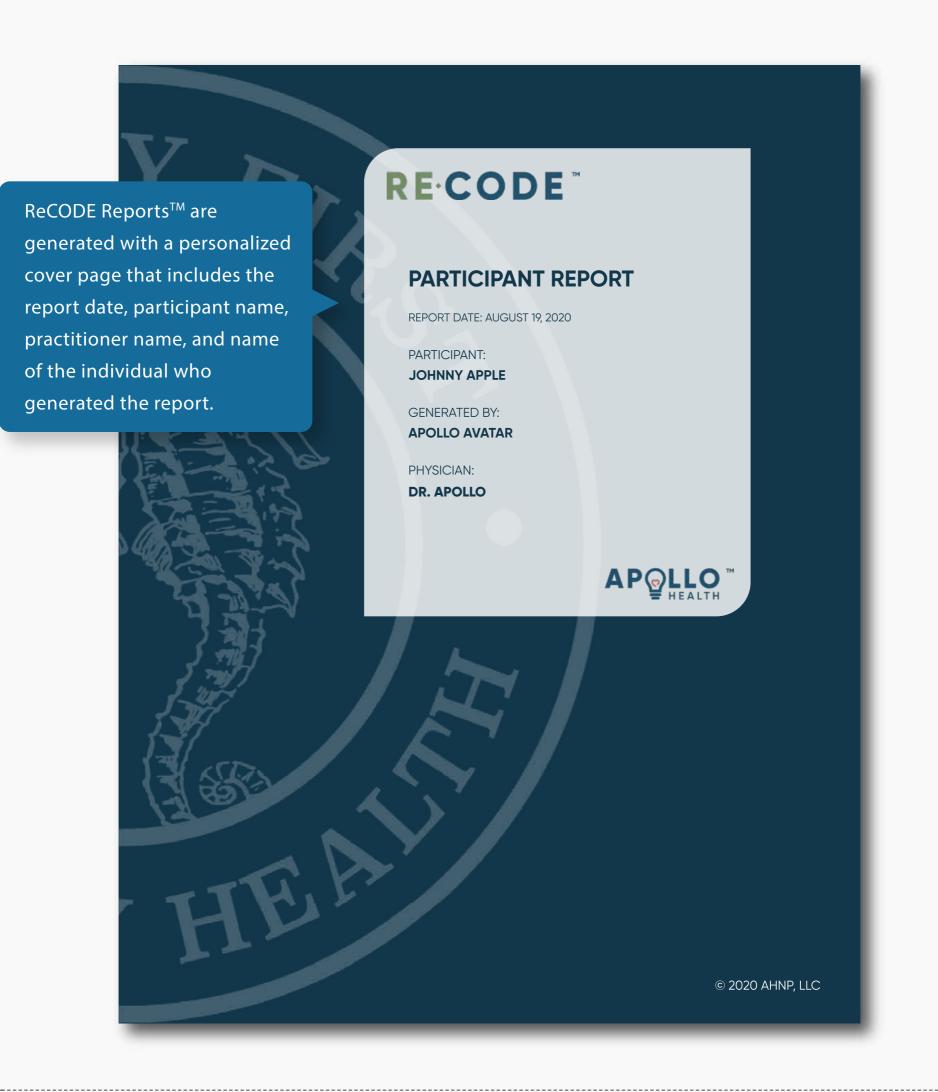


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YOUR RECODE REPORT

PARTICIPANT: JOHNNY APPLE REPORT DATE: AUGUST 19, 2020 ΑΡ

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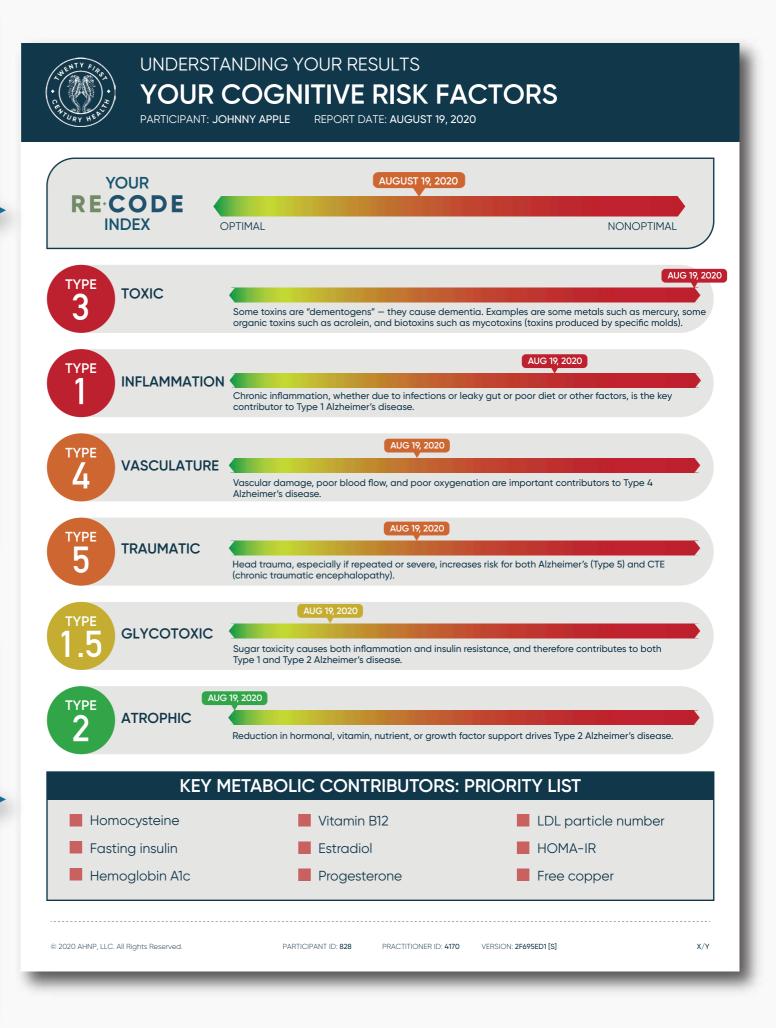
SAMPLE RECODE REPORT



Your Risk Factors

Your ReCODE index provides a snapshot of the participant's current state of cognitive decline and provides a summarized index of his/her current metabolic state made of all six Alzheimer's subtypes. The index provides a visual goal to move each thermometer to an optimal state.

The goal is not simply to normalize metabolic parameters, but rather to optimize them. This personalized list highlights the participant's primary areas of concern.



The Six Subtypes

The ReCODE Report measures the level or risk and contributors for all six subtypes. Each page provides a description and contributors of each subtype along with a personalized analysis based on genetic and blood results.

	PARTICIPANT: JOHNNY APPLE REPORT DATE: AUGUST 19, 2020	
1 INF		
AUG 19, 202		
	flammation, whether due to infections, leaky gut, or poor diet or other factors, is the key contributor to heimer's disease.	
(often unre	s associated with inflammatory markers such as hs-CRP, and the inflammation may be due to infections ecognized) or leaky gut or suboptimal diet or other factors. Risk for type 1 is increased by ApoE4, chronic trans fats, damage to your gut microbiome, and other factors.	
Let's see h	now you are doing with risk for inflammatory Alzheimer's, so that we can minimize this risk.	
	r Results	
ongratulat [:] people su ging" becc	(high sensitivity C-reactive protein, which is a measure of inflammation) was 0.5 mg/l, which is excellent - ions, your hs-CRP does not indicate high risk for inflammatory Alzheimer's! This is important, because millio iffer from chronic inflammation, and this takes a toll, accelerating our aging (which is often called "inflamm use inflammation is such a common and important feature of aging), increasing risk for Alzheimer's, and sk for other chronic illnesses such as vascular disease, arthritis, and cancer.	ns
revent furtl ealth gooc athogens y «posure to	tion in the treatment section will help you to keep this inflammation low for years to come, thus helping to her cognitive decline. This includes keeping your gut healthy – avoiding "leaky gut" – keeping your oral I (pathogens from dental disease, such as P. gingivalis, increase risk for Alzheimer's disease), treating you may get from ticks (such as Borrelia or Ehrlichia), treating viral outbreaks such as Herpes, and avoiding inflammatory toxins such as those from specific molds. The "B7" section offers the best approaches for thy and avoiding chronic inflammation and its associated risks.	
s-CRP, suc iis at 1.8 or ethylation	t quite as predictive of inflammation-related disease as hs-CRP, there are other markers that complement h as A/G ratio (albumin to globulin ratio) and homocysteine. Your A/G ratio was 2.2 : 1, and the goal is to se above. High homocysteine may also be associated with inflammation, although it is most reflective of (which is important in many processes, including detoxification pathways). The goal for homocysteine is 7 or lower. Your homocysteine was 10.7 uM.	
at, althou	o these laboratory tests, your genetics can also influence your risk for Alzheimer's disease. The great news gh your genetics may influence your risk, this can be countered very successfully. As an example, regular uces the risk of the most common genetic risk factor, which is ApoE4, back to normal.	is
ssociated v ou won't go art the rev dividuals f	at your most important genetic risk factor: ApoE4. Each of us may have 0, 1, or 2 copies of ApoE4, and this with low, moderate, or high risk for Alzheimer's disease. Please remember that none of these guarantees thet Alzheimer's or that you will, so even if you have 2 copies, being on a reversal program should allow you rersal of your cognitive decline – indeed, there is a wonderful site – <u>ApoE4.info</u> – at which over 3000 rom all over the world, all ApoE4+, share information and share their best practices. Most of these individude e variation of ReCODE or PreCODE.	nat u to

SAMPLE RECODE REPORT

Where Do I Start?

ReCODE reports include a personalized starting point for all individuals on the protocol.



UNDERSTANDING YOUR RESULTS WHERE DO I START?

PARTICIPANT: JOHNNY APPLE REPORT DATE: AUGUST 19. 2020

STEP

Achieve insulin sensitivity and mild ketosis, 1 to 4mM beta-hydroxybutyrate by ketone meter, or 7-40 ACES on breathalyzer (Biosense).

Ketosis is the production of ketones by which you metabolize your body's fats to use as energy, instead of using sugar or other carbohydrates. Ketosis has several mechanisms to enhance cognitive function. The instructions for how to do this are included in your overall program.

Your goal is to work up to a minimum 12-hour daily fast, including at least 3 hours before bedtime utilizing the "KetoFLEX 12/3" diet emphasizing healthy fats.

Combining a long daily fast with the recommended diet and exercise 5-6 times per week may be enough to reach your ketosis goal. If you are having difficulty either fasting, transitionally (a month or two to start is often helpful) consider the use of MCT oil or ketone salts or esters to help you extend your fast and reach your desired level of ketosis. Your physician and health coach can guide you with tips to how to optimize your ketosis, which in turn will support your optimal brain function. Use your ketone meter to monitor your progress.

STEP
2

Enhance methylation to reduce homocysteine.

Homocysteine is an important contributor to Alzheimer's disease and vascular inflammation, and reducing your homocysteine is one of the key goals of your program. This is accomplished with the synaptic support items listed in your program.



Optimize hormonal support for your brain.

Your profile indicates that optimal hormonal support will be key for cognition, and therefore it is recommended that you consult your physician about the ideal hormonal support.



Optimize vitamin B12 level.

Insufficient vitamin B12 is a contributor to cognitive decline, and somewhat surprisingly, even "low normal" levels of B12 can contribute to cognitive loss. Some of us who have reduced gastric acid (stomach acid) – such as those who take proton pump inhibitors for reflux – do not absorb vitamin B12 or several other key nutrients, so we may need to supplement B12 for best cognitive function. Furthermore, there are multiple forms of B12 to take, such as methyl–B12, hydroxo–B12, and adenosyl–B12. Optimizing B12 levels, and using the right type(s) of B12, are key to optimizing cognition.

STEP

Minimize exposure to dementogens.

There are many contributors to cognitive decline: just as we are exposed to many carcinogens (cancercausing chemicals), we are also exposed to dementogens, such as specific toxic metals, organic solvents, pesticides, mycotoxins (toxins produced by mold species), and some medications, among others. Proton pump inhibitors (PPIs), often taken for reflux (GERD, or gastroesophageal reflux disorder), may reduce our absorption of critical nutrients for brain function, such as zinc and vitamin B12. Statins may reduce cholesterol, which is critical for brain structure, too far. Anesthetic agents, some antidepressants, some antihistamines, benzodiazepines, some pain killers (like opiates), and anticonvulsants (seizure drugs), are all drugs that affect cognition and can contribute to reduced cognitive ability.

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Understanding Your Results: B7



UNDERSTANDING YOUR RESULTS YOUR RECODE JOURNEY

The ReCODE Report provides a detailed outline of seven foundational strategies that work together to create neuroplasticity, called the Bredesen Seven or B7.

Introducing the Bredesen 7

The best way to reverse cognitive decline is to combine the personalized aspects of your ReCODE report, which has identified potential future drivers of cognitive decline, with the Bredesen Seven (or B7), the seven foundational strategies that work together to create neuroplasticity – the ability of the brain to establish, maintain, prune, and modify synaptic connections. Each of the strategies alone has the ability to promote neuroplasticity, but when practiced together they create powerful synergy. More extensive information on the B7 can be found in the guides to which you have access on apollohealthco.com.



Nutrition: Nutrition plays a remarkably important role in the reversal of cognitive decline. The goal is to utilize nutrition to support brain health by creating insulin sensitivity, increasing energy (via ketosis), reducing inflammation, improving vascular health, promoting autophagy, and more.



Exercise: Exercise has many mechanisms by which it supports cognition. It increases your brainderived-neurotrophic factor (BDNF), increases cerebral blood flow and oxygenation. Additionally, it reduces overall stress, optimizes body mass index (BMI), improves insulin sensitivity, and optimizes overall brain and body physiology in numerous ways.



Sleep: Sleep enhances our ability to focus, learn, and memorize. It is critical that oxygenation be appropriate during sleep (96-98% saturation is optimal) with the overall goal of 7-8 hours of quality restorative sleep each night.



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Stress: Stress, especially chronic stress, can be a key contributor to cognitive decline. While stress is unavoidable, you can learn to control your reaction to it by adopting daily stress management practices. Additionally, consider including mindfulness – the ability to be fully present in a non-judgmental manner – to aid in the incorporation of the B7 strategies.

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Brain Stimulation: Brain Stimulation becomes even more important as we age to create neuroplasticity – the ability of the brain to establish, maintain, prune, and modify synaptic connections. This remodeling of our brains occurs throughout our lives in response to social and mental stimuli.



Detox: Detox is a multi-step process that involves avoiding "dementogens," chemical agents that contribute to Alzheimer's disease, as well as identifying and addressing current exposures while optimizing detoxification pathways to create resilience.



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Supplements: Supplements can support numerous mechanisms to optimize your biochemistry. While they are "supplemental" to the overall program, they can be an important contributor to healing, especially if you're suffering from a specific nutritional deficiency that affects your cognitive health.

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Your Suggested Plan: Supplements & Personalized Alternatives

Each report includes a personalized list of recommended supplements by LifeSeasons. For individuals who would like to take their preferred brand of supplements or do not have access to the LifeSeasons formulation may purchase the supplements listed in the Personalized Supplement Alternatives.

YOUR SUGGESTED PLAN

PARTICIPANT: JOHNNY APPLE REPORT DATE: AUGUST 19, 2020

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out your thyroid status.

pation or depression, m further tests or talk to

optimal at or near 1.0.

ne next 6 months, you

ractitioner about

er your LDL is the

at liver health may not be

osure or other factors. ment in 6 months, you liver is so important for

best cognition.

d below Note

enols 400 IU

o times per day

na 2-3 times per

d EPA) 1 g once or

ne) 10 mg once

nce per day

day

P) 20 mg once per

ce or twice per

VCFE) 200 mg

oer day

7. SUPPLEMENTS

The goal of all of the 7 parts of the "B7" is to create the very neurochemistry that supports the production and maintenance of synapses, the critical connections in our brains. If we optimize the various parameters in the B7, we should be able to make and maintain these synapses for decades to come. As you've already read, diet, exercise, sleep, stress management, brain stimulation, and detoxification are all important and powerful. Adding to these is supplementation, and while the effective use of supplements is critical to best outcomes, please remember these are, by definition, or Thus they are meant to be used with the other members of the B7 and in such a setting

supplementary. Thus they are meant to be used with the other members of the B7, and in such a setting, they provide effective synaptic support.

In order to keep pill and capsule numbers to a minimum, we have worked with LifeSeasons to synthesize a supplement solution for you. We suggest indviduals on the protocol to include the ReCODE Core Kit in their supplement regiment. The ReCODE Core Kit includes a Morning Balance, Evening Balance, Daily Multivitamin, Daily Probiotics, Daily OMEGA-3, and Daily Antioxidants. In addition, depending on your subtyping, we recommend additional subtype formulas in your personalized protocol (below).

If you are currently taking medications such as blood thinners, please consult with your physician before starting supplements.

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ReCODE Core Kit

ReCODE Morning Balance

Suggested Use: In the morning, mix two level scoops with water and drink.

ReCODE Morning Balance contains ingredients that have been shown to promote cognition and memory by providing signaling and trophic support. Exogenous ketones are included to fuel energy production and endurance. Soluble dietary fiber and probiotics help sustain gut health and immunity. Various nutrients support a healthy vascular system and natural energy.

ReCODE Evening Balance

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Suggested Use: In the evening, mix two level scoops with water and drink.

ReCODE Evening Balance contains ingredients that have been shown to reduce stress and promote sleep, cognition, and memory by providing signaling and trophic support. It was designed to support the brain's neurotransmission systems and to reduce stress and promote sleep, while helping to sustain gut health and immunity.

DARTICIDANT ID: 828







Your Suggested Plan: Hormone Therapy

The Bredesen Protocol incorporates physician-supported hormone therapy to achieve optimal hormone levels to support brain structure and function. Note, bio-identical hormone replacement therapies should preferably be conducted with a physician specialized in bio-identical hormone replacement.

HORMONE THERAPY	_
Please consult with your physician, preferably an expert in bio-identical hormone replacement, on possible hormone replacement therapies.	
Replacement should be bio-identical.	
Target progesterone level for 1-10. Progesterone is usually started at 100mg orally each night.	
• Target estradiol level for 80-200. Estradiol should not be taken orally. Best is trans-vaginal or transdermal, following levels. Estradiol can be with or without estriol (Estradiol + estriol is best). Important to monitor carefully for side effects by doing regular mammography and Ob-Gyn examinations.	
Retest DHEA-Sulfate in 3-6 months.	
 Talk with practitioner about Thyroid (Armour or NP Thyroid or Westhroid or Naturethroid) 60mg; Check basal body temperature or Thyroflex. 	
Avoid sudden withdrawal of HRT. When planning withdrawal, do so very gradually, over 6-12 months.	
Why This is Important Optimal hormone levels support brain structure and function, and enhance the ability to make and store new memories, as well as inhibiting degeneration.	
Optimal hormone levels support brain structure and function, and enhance the ability to make and store new	



Your Suggested Plan: Recommended Reading

Dr. Bredesen and the Apollo Health medical team have curated a specific list of books that can be a valuable reference to support cognition.

YOUR SUGGESTED PLAN

PARTICIPANT: JOHNNY APPLE REPORT DATE: AUGUST 19, 2020

Recommended Reading

Preventing cognitive decline is now possible – it is happening in thousands of people every day – and this goes hand in hand with optimizing cognition. A finely tuned brain will bring you all sorts of dividends for many years to come, and this simply means getting several different systems to work together as a network – from nutrition to exercise to sleep to growth factors to brain training, and so on. The books listed here are excellent, readable references to support cognition for decades to come. In addition to general references for cognition, we list specific titles for those who are at risk for a specific subtype of cognitive decline, such as toxic (Type 3) or vascular (Type 4).



- The End of Alzheimer's by Dr. Dale Bredesen
- <u>The End of Alzheimer's Program</u> by Dr. Dale Bredesen (with Julie Gregory and Dr. Aida Lasheen Bredesen) *Pre-order August 18, 2020
- The UltraMind Solution by Dr. Mark Hyman
- FOOD: What the Heck Should I Eat? by Dr. Mark Hyman
- FOOD: What the Heck Should I Cook? by Dr. Mark Hyman
- Grain Brain by Dr. David Perlmutter
- Brain Maker by Dr. David Perlmutter
- The Brain Body Diet by Dr. Sara Gottfried
- The Healthy Brain Solution for Women Over Forty by Dr. Nancy Lonsdorf
- Fat for Fuel by Dr. Joseph Mercola
- KetoFast by Dr. Joseph Mercola
- <u>The Longevity Diet</u> by Dr. Valter Longo (Keep the overall concept of KetoFLEX 12/3 in mind)
- Ketotarian by Dr. Will Cole
- <u>31-Day Food Revolution</u> by Ocean Robbins (Keep the overall concept of KetoFLEX 12/3 in mind)
- How Not to Die by Michael Greger (Keep the overall concept of KetoFLEX 12/3 in mind)
- <u>Super Immunity</u> by Joel Fuhrman (Keep the overall concept of KetoFLEX 12/3 in mind)

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Report Data

If recommended tests are incomplete, missing tests will be itemized and suggested.

Each report will be provided with the next suggested testing interval.

REMINDER YOUR NEXT LAB TESTS SHOUL The following pages include all of your lab results, genetic ReCODE Report. If available, each result will include a co ReCODE Target range, the raw value with units, reported Target ranges are color coded Green, Gold, and Red. Gre are within the normal reference range defined by the Apo	lor code indicating wh		2021-01
		d the source of the r	vithin the
range. Please note, these ranges and values may not mo using the Apollo Health lab and the lab test is significant inaccurate, so it is important to make sure that compatib	ollo Health lab, and Re Itch your preferred lab' ly different, the ranges	d results are outside s reference ranges.	e of normal If you are not
Please note that best outcomes require bringing lab valu optimal functional levels—this is well documented, for exc trained ReCODE Practitioner as these defined ranges are	ample, with homocyste		
Your results may be sourced from various data sources, w ReCODE Practitioners, or conducted assessments. Each i			
MEDICAL ADVICE, DIAGNOSIS AND TREATMENT BASED C THE SOLE DISCRETION OF A TRAINED RECODE PRACTITION	ON ANY REPORTED TAF	GET RANGES AND	
Please consult with your trained ReCODE Practitioner reg			

Raw Results

The Raw Results section lists and categorizes all of the individual's lab results, genetic tests, and health questionnaire responses. Each result will include the value, protocol recommended range, the date the result was recorded, and the source of the result. In addition, each result will be highlighted with a colored indicator identifying optimal, suboptimal, or abnormal results.

TEST	REPORT VALUE	TARGET RANGES	DATE	SOURCE
General Health				
Age	68		2020-8-19	Avatar
Sex	Male		2020-8-19	Avatar
Basal Body Temperature	98 deg. F		2020-8-19	Avatar
BMI	• 24	18-25	2020-8-19	Avatar
Systolic Blood Pressure	• 24 98	10-23	2020-8-17	Avatar
Diastolic Blood Pressure	90		2020-8-19	Avatar
Diastolic Blood Plessure	64		2020-0-19	Avutur
Assessments				
AQ-21-score	• 25		2020-8-19	self-reported
CNS Verbal Memory	 Average 		2020-8-19	
CNS Psychomotor Speed	 Average 		2020-8-19	
CNS Processing Speed	• Above Ave.		2020-8-19	
CNS Executive Function	• Low		2020-8-19	
CNS Social Acuity	Average		2020-8-19	
CNS Reasoning	• Above Ave.		2020-8-19	
CNS Simple Attention	 Very Low 		2020-8-19	
CNS Motor Speed	 Low Ave. 		2020-8-19	
MoCA score	• 28	28-30	2020-8-19	Avatar
Personal History				
Onset of Cognitive Decline	1913-12-31		2020-8-19	Avatar
Family History of Dementia	No		2020-8-19	Avatar
Diabetes	No		2020-8-19	Avatar
Simple Carbohydrates in Diet	• No		2020-8-19	Avatar
Depression	• No		2020-8-19	Avatar
Episodes of Aggressive Behavior	• No		2020-8-19	Avatar
History of Concussions	• No		2020-8-19	Avatar
History of Head Trauma	 No 		2020-8-19	Avatar
Vomiting After Head Trauma	• No		2020-8-19	Avatar
Loss of Consciousness	• Yes		2020-8-19	Avatar
Alcohol Related Withdrawal or Seizu			2020-8-19	Avatar
Illicit Drug Use	No		2020-8-19	Avatar
Anti-Testosterone Medication	No		2020-8-19	Avatar
History of Heart Attack or Angina	No		2020-8-19	Avatar
History of Hypertension	No		2020-8-19	Avatar
History of Peripheral Vascular Diseas			2020-8-19	Avatar
	No		2020-8-19	Avatar
Hysterectomy Before 41	No		2020-8-19	Avatar
Hysterectomy Before 52	INO		2020-0-19	Avatar

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