

You get young, fit, and supremely healthy.

Oh, so that's how I'm going to die, I think, as Dr. Florence Comite explains the preliminary results of my blood tests. Apparently I have a particular gene that is Not Good. Comite, who is explaining all the tests on the phone, hears me start to hyperventilate. "No, no, really, it's not so bad," she says soothingly. "By eating a diet high in raw fruits and vegetables, you can actually turn the gene off!" Being an expert at turning things off (ask my husband), I should take comfort in this thought. Instead, I'm having trouble listening to the rest of the doctor's explanation, since I'm so busy weighing the relative merits of embalming versus cremation. I admit: Perhaps I was the wrong person to volunteer for this job. But volunteer I did, and there's no going back now.

We're entering a new era in medicine, one that promises to radically alter each of our lives. Personalized approaches, like the ones outlined in the pages that follow, stand to stop future aging and maximize your health. They're in demand and in

PHOTOGRAPHS BY DUSTIN AKSLAND

it's personal

To join the new world of customized health, How many tests? Guinea pig **Judith Newman**

you'll first have to take some tests. swabs her way to self-knowledge.

development and testing now. And you know what's at the starting gate for every one of these bespoke therapies? Effluvia.

In the coming months, I am going to be swabbing, bleeding, peeing, and <insert other bodily functions> for you. (Well, really, for me. But let's just go with the conceit that I'm doing it for you.) Saliva swabs from the company Skinshift will determine genetic markers in my skin that will allow me to assess my risks of sagging, wrinkles, and sensitivity to the sun, as well as the treatments that will keep

these horrors at bay. Lifegenetics will study my DNA composition to determine the best way for me to not only lose weight but also maintain that weight loss. A company called Brain HQ, which calls itself "a personal trainer for the brain," will measure my cognitive skills and, reportedly, help me improve both brain function and memory. Which is excellent if true, since my current memory can best be summed up by the phrase "Wait, I did what in 1985?"

And then there's Florence Comite. She is beautiful and 400 years old.



Testing, Testing...

A SMALL SAMPLING OF THE DOZENS OF MEASURES TO WHICH JUDITH NEWMAN IS SUBJECTING HERSELF FOR THE SAKE OF SCIENCE:

Body composition and bone density: The scary truth about my body-fat and lean-muscle percentages, plus how close my bones are to crumbling.

VO₂ max calculator: A measure of my cardiovascular fitness, based on how well my body uses oxygen (fancy!).

EndoPAT score: Has my fixation on cheese-filled dates wrapped in bacon affected my arteries? This measurement un-masks the inflammation throughout my body.

Cardio IQ: I'm going to get heart disease, I know it. This test will lend my paranoia some DNA- and cholesterol-particle-based legitimacy.

Sleep imaging: In which some kind of Big Brother machine monitors me while I sleep, and then judges me for my repeated bouts of old-boyfriend stalking at 3 AM.

uBiome: Revelations about the bacterial life in my gut—in exchange for sh*t.

Skinshift: Has sunscreen been doing its job? Just how many more liver spots can fit onto one woman's face?

Brain HQ: Tests memory, attention, brain speed, intelligence, and people skills, aka my worth as a human being.

One part of that sentence is true. She is a Yale-trained endocrinologist whose practice, ComiteMD, is at the forefront of what she calls "age management" via "precision medicine." A business like hers lures us with the siren song of Self,

providing an in-depth measure of an individual's makeup, including metabolism, hormones, genomics, and numerous biomarkers, such as DNA telomeres. The idea is to help us avoid the preventable conditions of aging (or at least put them off until we're Willard Scott-worthy).

Isn't this a valuable goal for me, your average overanxious, underactive 53-year-old with 2 kids and 15 extra pounds? Certainly I think so, even if I fear what I'll find out.

And fear it I do. In a way, I'm the opposite of a hypochondriac: a pathological avoider of health information. I never make that once-a-year GP appointment; I waited 12 years after my children were born to see a gynecologist again. My first mammogram was at 51. That sort of thing. My reasoning has been that both my parents made it into their mid-80s, so I'll just trust in my good genes.

But my parents could have made it considerably longer if they hadn't been huge avoiders. For my father, doctor visits invariably involved an ambulance, because a situation had to reach DEFCON 1 status before he took action on anything. And my mother? She died of squamous cell skin cancer that could have been excised easily if she hadn't been too embarrassed to see a gynecologist about it. Instead, she ignored it over the years and let it grow inward, spreading to her vagina, bladder, and points north.

Did I mention my mother was a doctor?

I am trying very hard not to repeat history and instead to take advantage of what my parents never had: the opportunity to spot medical trouble looming far in the distance—and then avert it.



BLOOD ICON ILLUSTRATION BY FEDERICO PANZANO OF THENOUNPROJECT.COM

HAIR AND MAKEUP BY BRANDIE HOPSTEIN



I am trying very hard not to repeat my parents' avoidance. Instead I'll spot medical trouble in the distance—and avert it.

Some of the results have already come in. The unfortunate genetic marker I have is called 9p21. My version of this chromosome increases the risk of cardiovascular disease (for more, see p. 86). It's not that big a deal, really. Fifty percent of the population has it. And given that pretty much everyone in my family dies of a stroke or heart attack, this shouldn't be a big shocker. Yet it's always a little unsettling to get a glimpse of the future.

I also learned that even though I have been taking replacement thyroid medication for hypothyroidism for many years, my body is not converting that drug properly. So I'm still thyroid deficient, a situation that's true for about one in every

five people with a genetic setup similar to mine. Additionally, my testosterone levels are almost nonexistent. Testosterone is essential, in women as in men, for maintaining lean muscle, preserving bone, reversing diabetes, and protecting the heart and brain. It is also the hormone most responsible for libido.

"No testosterone?" my husband said. "Well, that explains a lot."

And then there's vitamin D, which is critically important for bone strength, especially as we age, because it helps us process calcium. Our bodies make it when we're out in the sun; we can also get it from certain foods, like fish, dairy, and eggs. I eat little dairy and no fish, and

my time in the sun is about equivalent to that of your average mole rat. "Congratulations, you win the prize for the lowest vitamin D reading I've ever seen!" Comite enthuses. "Let's plan to optimize D in your diet—and give you supplements."

I can't wait to see what great shape my bones are in. It's probably a miracle that as I walk around, I don't collapse into one big pile of dust.

In the coming months, I will return to Comite for further tests and to decide whether I should make myself into a bit of a science experiment. Lucky you, you'll get to watch and maybe even learn from my mistakes.

I will discover not just what my cholesterol number is but also how big or small the cholesterol particles traveling through my bloodstream are—a much more crucial indicator, Comite says, than simply how much "good cholesterol" and "bad cholesterol" I have. I will find out, with as much precision as medical science can muster, my hormone levels and how I might adjust them (not just estrogen and testosterone but also progesterone, human growth hormone, insulin growth factor, and cortisol). I will learn my inflammatory markers, my bone density and body composition, my metabolic function (there may be a reason other than sloth and middle age that I can't seem to build muscle or lose those extra pounds), arterial health, and overall fitness levels. And I will find out what I can do to right the *Titanic*. "This isn't just about being in good health; it's about optimal health," Comite says. According to the ethos of personalized medicine, we shouldn't just treat illness; we should work on extending our wellness.

I'd like to know that I'm going to be around to watch my 13-year-old twins graduate from college or to spring them from prison, whichever way it works out. I'd like a sharper memory and more energy and better skin and—more. I'd just like more. Over the next few months, I plan to learn as much as possible. And yet I'm scared. I think the notions that "information is power" and "information is frightening" are not mutually exclusive. So there's a combination of curiosity, dread, and cautious optimism: Maybe I can take action before I get in serious trouble.

In some ways I suppose I already have.

To track Judith Newman on her personalized medicine journey, go to prevention.com/judith.

COTTON SWABI ICON ILLUSTRATION BY ROHAN GUPTA OF THENOUNPROJECT.COM

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