

## HEALTH / NATIONAL

**What Is Monkeypox, and How Worried Should Americans Be? pt 2**

(Editor's Note: Read Part 1 in last week's edition or online at [chattnewschronicle.com](http://chattnewschronicle.com))

**Monkeypox treatment**

Although there are no proven safe treatments for monkeypox, doctors are certain that the virus can be controlled.

"I feel like this is a virus we understand, we have vaccines against it, we have treatments against it, and it's spread very differently than SARS-CoV-2 (the virus that causes COVID-19)," Dr. Ashish Jha, the White House COVID-19 response coordinator, told ABC News on Sunday.

"It's not as contagious as COVID. So I am confident we're going to be able to keep our arms around it," Jha says. "But we'll track it very closely and use the tools we have to make sure we can continue to prevent further spread and take care of the people who get infected."

Smallpox vaccines, antivirals, and vaccinia immune globulin (VIG) can be used to treat monkeypox and have been proven to be effective at preventing the spread of the virus. The U.K. and Spain are now offering the vaccine to those who have been exposed to infections to help reduce symptoms and limit the spread.

In fact, the U.S. government has already placed a \$119 million order for the vaccine with an option for more. British health authorities are offering smallpox shots to some health care workers and others who may have been exposed to monkeypox.

**Is monkeypox deadly?**

In Africa, anywhere from 1% to 15% of people with monkeypox will die from the virus. "Severe disease and [death] is higher among children, young adults, and immunocompromised individuals," Newman adds.

While it does not occur naturally in the United States, this is not the first time monkeypox has been seen in the nation. A 2003 outbreak was linked to infected prairie dogs imported as pets.

Still, many questions about the new outbreak remain.

"We need to monitor it and understand how it is behaving and how it has been introduced into the new population," Rimoin shares.

The 2003 U.S. outbreak, for example, was quickly contained through extensive testing, deployment of smallpox vaccine and treatments, and guidance for patients, health care providers, veterinarians and other animal handlers.

"All 47 people recovered, and none of the 47 cases spread the illness to another person," she adds.

"I'm stunned by this. Every day I wake up and there are more countries infected," says virologist Oyewale Tomori, who sits on several World Health Organization advisory boards.

"This is not the kind of spread we've seen in West Africa, so there may be something new happening in the West," he told the AP.

Despite all of these recent infections in areas where the virus is uncommon, and newfound concern that the



disease may spread through sexual contact, health experts are warning against overreacting. Unlike newly emerging diseases like COVID-19, monkeypox is well understood and effective treatments are available.

"Nobody should be panicking," says Anne Rimoin, chair of infectious diseases and public health at the University of California, Los Angeles. "Monkeypox is a known virus that is being introduced into a new population."

**How do you prevent monkeypox virus?**

Prevention depends on decreasing human contact with infected animals and limiting person-to-person spread. According to Cleveland Clinic, you can prevent monkeypox virus by:

- Avoiding contact with infected animals (especially sick or dead animals).
- Avoiding contact with bedding and

other materials contaminated with the virus.

- Washing your hands with soap and water after coming into contact with an infected animal.
- Thoroughly cooking all foods that contain animal meat or parts.
- Avoiding contact with people who may be infected with the virus.
- Using personal protective equipment (PPE) when caring for people infected with the virus.

If you experience new rashes or are concerned about monkeypox, contact your healthcare provider. To diagnose monkeypox, your healthcare provider will take a tissue sample that is looked at using a microscope. You may also need to give a blood sample to check for the monkeypox virus or antibodies your immune system makes to it.

(BlackDoctor.org by Jessica Daniels)

**Is Intermittent Fasting the Diet for You? Here's What the Science Says**

Intermittent fasting could have an array of health benefits, but as of yet there are no long-term studies into its effects. (neirfy/iStock via Getty Images Plus)

By McKale Montgomery

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What if I told you all you need to do to lose weight is read a calendar and tell time? These are the basics for successfully following an intermittent fasting diet.

Can it be that simple, though? Does it work? And what is the scientific basis for fasting? As a registered dietitian and expert in human nutrition and metabolism, I am frequently asked such questions.

Simply stated, intermittent fasting is defined by alternating set periods of fasting with periods in which eating is permitted. One method is alternate-day fasting. On "fast days," followers of this form of fasting are restricted to consuming no more than 500 calories per day; on "feast days," which occur every other day, they can eat freely, with no restrictions on the types or quantities of foods eaten.

Other methods include the increasingly popular 5:2 method. This form of fasting involves five days of feasting and two days of fasting per week.

Another variation relies on time-restricted eating. That means followers should fast for a specified number of hours – typically 16 to 20 per day – while freely consuming foods within a designated four- to eight-hour period.

But what about eating breakfast and then small meals throughout the day to keep the body's metabolism running? After all, that's the conventional wisdom that many of us grew up with.

To answer these questions, it helps to understand the basics of human me-

tabolism.

Human metabolism 101

The human body requires a continual supply of energy to sustain life, and the foods we eat provide us with this energy. But because eating is often followed by periods of time without eating, an intricate set of biological pathways is in place to meet the body's energy demands between meals.

Most of the pathways function at some level all the time, but they fluctuate following a meal in a predictable pattern called the fed-fast cycle. The time frames of the cycle can vary, depending on the food types eaten, the size of the meal and the person's activity level.

So what happens, metabolically speaking, after we eat? Consuming carbohydrates and fats leads to a rise in blood glucose and also lipid levels, which include cholesterol and triglycerides.

This triggers the release of insulin from the pancreas. The insulin helps tissues throughout the body take up the glucose and lipids, which supplies the tissues with energy.

Once energy needs are met, leftover glucose is stored in the liver and skeletal muscle in a condensed form called glycogen. When glycogen stores are full, excess glucose converts to fatty acids and is stored in fat tissue.

About three to 18 hours after a meal – again, depending upon a person's activity level and size of the meal – the amount of circulating blood glucose and lipids returns to baseline levels. So tissues then must rely on fuel sources already in the body, which are the glyco-

gen and fat. A hormone called glucagon, secreted by the pancreas, helps facilitate the breakdown of glycogen and fat to provide energy for the body between meals.

Glucagon also initiates a process known as gluconeogenesis, which is the synthesis of glucose from nondietary sources. This helps maintain the right level of blood glucose levels.

When the body reaches a true fasting state – about 18 hours to two days without additional food intake – the body's stores of glycogen are depleted, and tissues like the heart and skeletal muscle start to rely heavily on fats for energy. That means an increase in the breakdown of the stored fats.

"Aha!" you might say. "So intermittent fasting is the key to ultimate fat burning?" Well, it's not that simple. Let's go through what happens next.

The starvation state

Though many tissues adapt to using fats for energy, the brain and red blood cells need a continual supply of glucose. But when glucose is not available because of fasting, the body starts to break down its own proteins and converts them to glucose instead. However, because proteins are also critical for supporting essential bodily functions, this is not a sustainable process.

When the body enters the starvation state, the body goes into self-preservation mode, and a metabolic shift occurs in an effort to spare body protein. The body continues to synthesize glucose for those cells and tissue that absolutely need it, but the breakdown of stored fats increases as well to provide energy for tissues such as the skeletal muscle, heart, liver and kidneys.

This also promotes ketogenesis, or the formation of ketone bodies – molecules produced in the liver as an energy source when glucose is not available. In the starvation state, ketone bodies are important energy sources, because the body is not capable of solely utilizing fat for energy. This is why it is inaccurate when some proponents of intermittent fasting claim that fasting is a way of burning "just fat" – it's not biologically possible.

What happens when you break the fast? The cycle starts over. Blood glucose and lipids return to basal levels, and energy levels in the body are seamlessly maintained by transitioning between the metabolic pathways described earlier. The neat thing is, we

don't even have to think about it. The body is well-equipped to adapt between periods of feasting and fasting.

Possible downsides

If an "all-or-nothing" dietary approach to weight loss sounds appealing to you, chances are it just might work. Indeed, intermittent fasting diets have produced clinically significant amounts of weight loss. Intermittent fasting may also reduce disease risk by lowering blood pressure and blood lipid levels.

On the flip side, numerous studies have shown that the weight reduction from intermittent fasting diets is no greater than the weight loss on a standard calorie-restricted diet.

In fact, the weight loss caused by intermittent fasting is due not to spending time in some sort of magic metabolic window, but rather to reduced overall calorie consumption. On feast days, dieters do not typically fully compensate for lack of food on fasted days. This is what results in mild to moderate weight loss. Approximately 75% of the weight is fat mass; the rest is lean mass. That's about the same ratio as a standard low-calorie diet.

Should you still want to go forward with intermittent fasting, keep a few things to keep in mind. First, there are no studies on the long-term safety and efficacy of following this type of diet. Second, studies show that intermittent fasters don't get enough of certain nutrients.

Exercise is something else to consider. It helps preserve lean muscle mass and may also contribute to increased weight loss and long-term weight maintenance. This is important, because nearly a quarter of the weight lost on any diet is muscle tissue, and the efficacy of intermittent fasting for weight loss has been demonstrated for only short durations.

Also, once you stop following an intermittent-fasting diet, you will very likely gain the weight back. This is a critical consideration, because many people find the diet difficult to follow long-term. Imagine the challenge of planning six months' worth of feasting and fasting around family dinners, holidays and parties. Then imagine doing it for a lifetime.

Ultimately, the best approach is to follow an eating plan that meets current dietary recommendations and fits into your lifestyle. (The CONVERSATION)

**Black Couple Graduated From Med School & Were Married in the Same Week**

Meet Dwight Johnson II and Taylor Brooks, a couple who recently graduated together as physicians from Meharry Medical College in Nashville, Tennessee. Six days later, the two got married.

Both of them graduated on May 15th as medical students from the institution which is one of four HBCUs located in Nashville. They both had been scholarship recipients, and they both graduated on May 15th, Dwight, as an OBGYN Physician, and Taylor as a Physician of Psychiatry.

Less than a week later on May 21st, the two were married at a beautiful ceremony that friends and family attended.

Dwight, who also studied at Mercer University School of Medicine in Macon, Georgia, posted on his Facebook page, "So much to be thankful for in

this past week. I was able to marry my best friend and then graduate as physicians together just 6 days later. God is so good. This is what #BlackLove mixed with #BlackExcellence looks like when you always keep God at the center of your life."

Meanwhile, Taylor, who also studied at Rice University in Houston, Texas, retweeted on her Twitter page what her new husband had just posted saying, "When you get married and graduate med school the same week."

