Breakfast. Is it the Most Important Meal of the Day?

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Have you ever heard that breakfast is the most important meal of the day? I certainly have. But why? Who says so? I mean, besides our mothers? Well…maybe that's enough...and maybe it's not. After a simple question posed to me I found myself needing to know why breakfast is held in such high regard. I soon dove into the research to get the answer and bring them to you, so you don't have to.

What Brought This Curiosity Around Breakfast?

In my Facebook group "Epic Living for Women in Midlife and Beyond" one of the members asked a question about breakfast timing in response to my post that we need to eat breakfast. I already knew that it could impact how much we ate later on. But what else? Why else is breakfast important? Is it important? Really?

As a woman in my middle years, sitting in that perimenopausal window, I've been looking at a lot of factors that influence my health and wellness and body composition, including what, when and how much we eat. You may also be a woman in midlife or older and trying to figure out how to combat the belly bulge, brain fog, and the seeming battle with your body you have probably played around with calorie restriction and meal skipping or intermittent fasting or other diet trends. I've done the breakfast skipping in the past thinking maybe it would help me burn up a few more calories I already had in store.

I'm hoping what I share here will put the question to rest for you so that you know what to do when you get out of bed. While this is not a review of the literature I went through several studies to find out what they found regarding the effects of breakfast on things like weight management, metabolism and eating behaviors.

But First, What is Breakfast?

Breakfast is the first intake of calories after our fasting period that happens usually after extended sleep. Most people eat breakfast after waking in the morning. Shift workers may not, and they deal with the effects of not eating meals in alignment with natural human circadian rhythms. The information I've prepared is meant for people who follow a typical pattern of sleeping at night and waking in the morning.

There are research articles that say that the fast is broken when we intake our first calories. That could be coffee with cream and sugar, a glass of orange juice or tea with milk and sugar. Or it could be a full on meal or something in between.

Other research does not count a beverage like coffee or tea when taken without sweeteners or cream or milk. So, if you're one of the six people in the world that drinks black coffee straight - it's not breakfast. I should also mention that there is much more research out there on meal timing and nutrient timing in general, under the developing field of chrononutrition. Doing this research had me geeking out a bit so I'll try to keep it simple for you.

Now that we've got that down, let's get on with it.

Breakfast Timing

Since breakfast is the first meal of the day, it reasons that it would be relatively early. But what does early mean?

Kelly et al (2020) conducted a small sample research study of Caucasian adults between 51 and 63 with four males and two females who were ages 57 and 63. This study included timing of meals. The study showed that breakfast had a positive impact on fat breakdown when taken over a two and one half day study period. The participants had the same meals but one group had breakfast and no late night snack (at 10pm) and the other had the late night snack but no breakfast. The breakfast group ate breakfast between 8:30am and 9:30am. Though the study does not say what time the participants woke up it did say the total fast time (from dinner to breakfast) was 13.75 hours.

One of the important discussions in the above mentioned study was the impact of the same meal, taken at different times (breakfast or as a late snack) on fat breakdown (lipid oxidation) while the subjects were sleeping. Those who ate the breakfast meal at breakfast had more fat breakdown.

In a study by Lopez-Minguez et al (2019), which included a review of existing literature along with original research, they conducted a large study of over 200,000 individuals in the United Kingdom. In this study they found that breakfast timing was influenced by heredity in 56 percent of individuals. This means that they were predisposed (more inclined) to eating at a certain time or within a certain amount of time of waking.

Although this study wasn't able to show whether breakfast skipping was the cause, it did note that skipping breakfast was linked to obesity. This could be due to the impact skipping breakfast has on total fasting time and how that total fasting time affects our metabolism. *If we extend fasting time, we may make up for it later, in other ways as other studies show.*

On the other hand, eating breakfast too early can also have negative effects because it may interfere with the natural cycle of melatonin. Some people have longer periods where melatonin is high and if breakfast is eaten while melatonin is still high it can increase metabolic risk (Lopez-Minguez et al 2019). You're probably thinking, this is double-talk and not helpful. But bear with me as we will come back to this before I'm done.

Early Birds and Night Owls (The Chronotypes)

It was shown by Lopez-Minguez et al that our chronotype may also affect our breakfast timing. Some of us are morning chronotypes or early birds, functioning and being active earlier in the day. Others are evening chronotypes or night owls, with our best functioning and activity late in the day or at night. These early birds and night owls have different experiences with the effects of meal timing.

The night owl (evening chronotype) who has high caloric intake within two hours of going to bed is five times more likely to be obese. The early bird (morning chronotype) who has a high calorie intake within two hours of waking up has a 50 percent lower chance of being obese (Lopez-Minguez). *Yes, it makes that much of a difference! I told you I would come back to that with a clearer message.*

Eating Breakfast in General

Throughout the research it's generally agreed that eating breakfast yields better outcomes than not eating breakfast (Xiao et al, 2019) as far as how the body responds to later meals, the glucose and insulin levels after the breakfast timeframe, and in body mass indices (BMI). While BMI is arguably not the best measure it is one that has been used in research for decades and therefore can be compared. This may differ by chronotype but, generally, those who eat breakfast have a lower chance of being overweight or having obesity.

In a study with 93 women averaging within 7 years of 46, Jakubowicz et al (2013) found that those who ate a high calorie breakfast compared to high calorie dinner had more weight loss compared to the women who ate a high calorie dinner. According to Jakubowicz 'fasting glucose, insulin, and ghrelin were reduced in both groups'. However for the group with a high calorie breakfast there was a *significant* decrease on all of these measures plus on HOMA-IR a measure of how well their bodies responded to insulin. In this research study by Jakubowicz women ate breakfast at 8am.

In a later study (2021), Jakubowicz found that diabetic individuals who skipped breakfast had a higher rate of postprandial (post-eating) hyperglycemia (high blood sugar) (PPHG) despite having the same carbohydrate makeup in their dusk meal as those who had it in the morning. Having the higher calorie breakfast had a benefit on "weight loss, appetite, and reduction of PPHG". The findings again suggest breakfast can support a heavier calorie and carbohydrate

load compared to later meals. So if you're going to lean towards a bigger carb-loaded meal, breakfast works better for it than a late meal.

In an observational study by Reukrakul et al (2014) made up of individuals over 40 and who were predominantly women (71%), they found that the 22 individuals who skipped breakfast had "significantly higher HbA1C levels, higher body mass indices (BMI), and later MSF (mid-sleep time on free days)". The Reukrakul study also associated skipping breakfast with the night owl chronotype.

A review of other research findings with predominantly female populations of diverse ages show that eating breakfast has a positive benefit to insulin levels, satiety, BMI levels and weight loss from eating a higher calorie breakfast. This is compared to skipping breakfast or eating the higher calorie meal late in the day or at night within two hours before bed.

Other discussions of chronotypes breaks people into more than these two groups and labels us by other animals, but for the purpose of the information I'm sharing, the two primary types should be enough.

Macronutrients and Weight Management

Does it matter what you eat as long as you're eating?

According to the 2012 research by Jakubowicz (this woman is on it, I know!) macronutrient makeup can impact hunger, satiety, and weight loss maintenance. In the research she shaded that those who ate a low carbohydrate breakfast lost more weight initially but regained the majority back by the sixteen week follow-up. The group who ate a high carbohydrate **and** protein breakfast not only maintained weight loss but lost on average more than six additional pounds at follow-up. Here's to life with the **and**!

Protein has been associated with greater satiety and it digests slower than fat or carbohydrates, keeping us full longer. It's also a key building block for muscle growth, made up of essential and nonessential amino acids we need to build and maintain muscle, for tissue growth and repair tissue, keep your skin and hair looking good, and your brain powered. Without enough protein you will literally (over time) fall apart.

Generally proteins take about two to six hours to digest, depending on how complex the source is. Eating protein throughout the day can aid in protein synthesis, starting with breakfast (Mamerow, M et al, 2014) https://doi.org/10.1371%2Fjournal.pbio.3000622 . A breakfast with healthy lean proteins and nutrient dense carbohydrates has the best potential for keeping you satisfied until the next meal and the healthier carbs can impact post-eating blood sugar levels as well. Generally women who want to maintain or build muscle (which is ideally all of us) need at least .8 grams of protein per pound of our ideal body weight. If you can get 1 gram in per pound, even better.

Research shows that our bodies tend to do well with eating proteins during the day, carbohydrates earlier in the day, and fattier foods later in the day. With this we do best to avoid heavy meals and high calorie meals late in the evening (Smith and Betts, 2022). This is contrary to our culture in the United States and in many parts of the world where either a late lunch or dinner are the main meal. They also found and reconfirmed that skipping breakfast doesn't necessarily result in weight loss as people will overcompensate for the missed calories later and will do less physical activity throughout the day (Sievert, K et al, 2019; Betts, J et al, 2016). Depending on your routines and preferences, making either breakfast or lunch, at a reasonable time, your main meal may help with glucose and insulin levels along with weight management.

Personally, I have recently tested having more carbs early in the day and easing off later in the day. Particularly with popcorn. Previously I would make a nice huge bowl of popcorn in the evening and feel bloated in the night and morning. It was great going down but didn't land very well. I shifted my popcorn party to before two o'clock in the afternoon and paired with a lean protein source or sardines (I admit I love them and they are an underrated superfood).

I would literally gain a pound over night with my evening popcorn snacks and feel bad in my body. By adjusting the time, I have eliminated the morning bloat and bad feeling and my body processes the carbohydrates and fiber in the hours I'm still awake. The other thing I do with my carb-heaven days is pair them with my HIIT/SIT workout days which amps my metabolism up for several hours- the hours I'm doing my happy snacking.

Now back to what you came for.

Putting it Altogether

So do you think you can skip breakfast and get positive benefits? Unfortunately, nah sis. It can seriously backfire. Kinda like diet sodas and fat-free foods with substitutions to make you think you're getting the real stuff. You can't fake it til you make it with your body and in midlife is when everything starts catching up with us.

Don't get overwhelmed because you can start with one thing. Breakfast.

Breakfast is the start of your day and can set a positive tone for your body and your circadian rhythm for the rest of the day, keeping your hunger levels, insulin and glucose levels in check and providing enough energy for you to be more physically active during the day. Yes, breakfast is a key part of a self-care routine for each 24 hour cycle.

Here are a few research supported takeaways and tips for eating and timing of breakfast.

- Eating a higher calorie breakfast compared to saving your biggest meal for dinner can help in weight loss and weight management.

- Eating most of your carbohydrates earlier compared to at dinner or during late night snacks is shown to help with insulin, glucose, and weight.

- Eating protein along with carbohydrates for breakfast can provide better satisfaction and keep you fuller longer.

- It is recommended to eat within 2 hours of waking.

- It is best to avoid eating a high calorie meal within two hours of going to sleep.

- A proper night's sleep helps the body manage and process the nutrients, reset internal clocks and the circadian rhythm, and prepare for the next 24 hour cycle.

- Those who eat based on being night owls have a higher risk of being overweight and having obesity compared to those who eat based on being early birds.

It’s not too late to start making healthy lifestyle adjustments. I made a big change at 47 and I am still tweaking and finding what works for my changing body during the time leading up to my freedom years.

In addition to what the science says, listen to your body and its cues. Feel for hunger cues versus cues that masquerade as hunger such as boredom, anxiety, nervousness, depression, etcetera.

If you are unaccustomed to eating breakfast, start small and test out different timing windows. Planning consistent meal times trains your body to process food and helps regulate your internal clock. Randomly eating actually can cause internal confusion, improper food storage (or simply putting some of your food calories into storage when you'd rather they be broken down and used), and slowing of your metabolism.

Another easy thing to do, besides eating breakfast, is to start paying attention to what you're already doing. You can try keeping a food journal for a full week and include how you feel before and after meals, being very mindful of your SHMEC (stress, hunger, mood, energy, and cravings) each day and throughout the day. This will give you lots of information specific to you and your body and allow you to adjust as needed. But this isn’t necessary to get started and you can always so this later if you want.

The bottom line is to eat a balanced and nutritious breakfast within a couple hours of waking in order to send good fuel and food signals to your body for the rest of the day.

Now, what's for breakfast?

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