

A sneak peek inside PN Academy's...

Research Insider

November 2020

Easy-to-read summaries of the most relevant and useful scientific studies for coaches in nutrition, health, fitness, and psychology. Including: big-picture takeaways and client-tested advice that you can use to be a better coach right away.

How many calories can a person REALLY eat?

(Be honest, you've always wondered.)

Here's a relatable scenario: In a recent study, a group of young men were asked to eat Domino's pizza until "comfortably full." The result? The pizza-eaters consumed an average of nearly 1,600 Calories each, according to a University of Bath study.¹

For a person trying to lose fat—or most anyone, really—1,600 Calories is a probably a good chunk of their daily calorie allotment. But remember, they didn't actually "stuff" themselves.

Which begs the question:

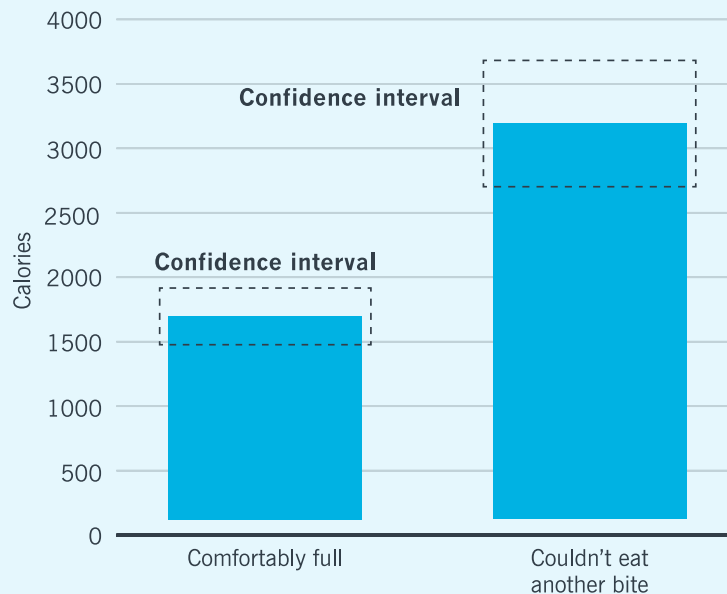
*What would happen if they'd said,
"The heck with it!"?*

(Think: epic cheat meal, holiday dinner, or maybe just "Saturday night.")

The researchers looked at that, too.

On another day, the same men were told to "eat all you can eat" and "until you can't physically eat another bite." Their subsequent intake: 3,100 Calories.

The scientists summed it up this way: "Healthy men have the capacity to eat twice the energy content required to achieve comfortable fullness at a single meal."



Coaching takeaways

1. It's way easier to overeat hyper-palatable, energy-dense foods (like pizza) than many clients think.

Given that the energy density of foods can vary significantly, lots of people simply don't realize how many calories they're consuming.

This helps explain why some folks aren't making progress—even if they swear they're only eating 1,200 calories a day.

2. Help your clients identify their personal “red light” foods.

Not every client will have the same experience with every energy-dense food. For one client, it'll be ice cream they can't put down. For another client, maybe chicken wings.

Here's a downloadable form we use with our clients: [Red-Yellow-Green Foods Worksheet](#). As a coach, this can help you identify the “I can't believe I ate the whole thing” foods that could interfere with your clients' goals.

3. How fast you eat can change how much you eat.

When the study participants ate until “comfortably full,” they finished their meal in an average of just 16 minutes.

By our math, participants consumed 7+ slices of pizza—or a slice every 2 minutes and 12 seconds. If that sounds pretty fast, we agree. But we'd also say it sounds pretty normal, based on our experience with clients.

That's why we encourage clients who want to lose fat or eat more intuitively to slow down. This strategy can help them eat less for two reasons.

- **Reason 1: Physiology.** It takes about 20 minutes for your body's satiety signals to kick in. Slow eating gives the system time to work, allowing you to better sense when you've had enough.
- **Reason 2: Psychology.** When you slow down, and try to savor your meal, you tend to feel satisfied with less food.

One more interesting finding: The idea of a belt-loosening meal? It's real. Waist measurements increased by more than a ½ inch (1.6 cm) after the “comfortably full” meal, and by more than one inch (2.6 cm) after the “couldn't eat another bite” meal.

By encouraging clients to take their time and pay attention to how they feel before, during, and after eating (“whoah, my pants feel tighter”), they’ll become more aware of appropriate portion sizes for their body.

Resources

- Article: [Learn how to coach slow eating](#)
(a good read on how and why slow eating works, with case studies)
- Article: [Manufactured deliciousness: Why you can’t stop overeating](#)
(the science of why some foods are so irresistible... and what to do about it)
- Tool: [Red-Yellow-Green Light Foods Worksheet](#)
(helps client identify their personal red, yellow, and green light foods)
- Tool: [Eating Slowly Meal Journal](#)
(clients can use this track whether they ate slowly or not)

Nerd Knowledge

If you think 3,100 Calories is a lot of food...

In 1992, Paris Diderot University researchers documented energy intake and body composition changes in 9 young Cameroonian men during Gura Walla, a traditional “fattening session” performed during their tribe’s rainy season.

The finding: These volunteers, on average, consumed 8,700 calories per day for 60 days and gained 37 pounds (24 pounds of fat; 13 pounds of lean tissue).²

What else can you find in Issues #1 and #2? Here are the highlights:

Ice cream, chips, and cookies: How to deal with “problem” foods.

In this new study at Penn State, researchers asked 186 women who they classified as “overweight” or “obese” to rank the “foods you can’t resist and find hard to stop eating.”

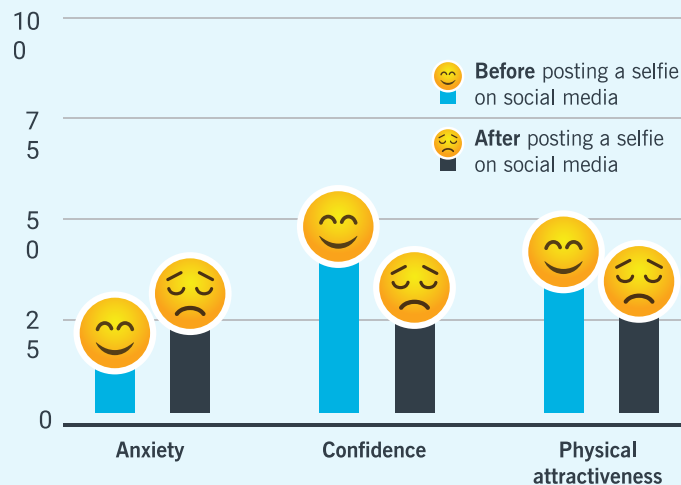
Then they had participants follow a 12-month weight loss program, and monitored their strategies for managing these problem foods.

The big question: Is it better to avoid problem foods entirely, or eat them in moderation?

Find out what the results say, along with super useful tools you can give to clients to overcome their most frustrating food challenges.

Is social media holding your clients back?

We’ll save the study details for **Research Insider**, but this visual will give you a pretty good clue. It shows how women felt immediately after posting unretouched selfies to social media.



Participants rated their feelings of anxiety, confidence, and physical attractiveness—on a 100-point scale from “not at all” to “very much”—and posted a selfie to their preferred social media account. Then they rated each factor again. This graph shows how their perceptions changed (they felt worse in every category).

Battle of the “burgers”: Beyond Meat vs grass-fed beef

Ever wonder if “plant” burgers are healthier than real meat? To find out, Stanford University researchers pitted hamburgers, chicken, and sausage against plant-based alternatives in a head-to-head test.

The results of the study were highly publicized in the media. After all, it’s a... VEGAN VS MEAT-EATER THROWDOWN!

Based on some of those reports, you might think it wasn’t even close: Plant burgers by a landslide. But we took a closer look to give you the full picture.

How muscles grow: a new hypothesis

Scientists have been studying muscle growth since at least 1897. But more than a century later, there's no consensus on how muscles actually get bigger.

In this super geeky report, leading muscle scientists share their latest idea on the topic, which (we think) is pretty darn cool.

If you dig that kind of thing, you'll love it.

And if you don't, we've included a little muscle history trivia that everyone ought to know about. Heck, given that statement, we'll just share it with you now.

Three sets of 10: The origin story

"Three sets of 10" is a popular muscle-building protocol, but did you ever wonder where it came from?

(It's interesting, we promise!)

No, it wasn't Arnold or Steve Reeves or Jack Lalanne.

It came from an army physician named Thomas Delorme, according to a paper in the **Journal of Strength and Conditioning Research** (and summarized [here](#)).²

An avid weightlifter himself, Dr. Delorme began employing "heavy resistance training" in the 1940s to help military personnel rehabilitate from injuries and muscle atrophy.

That sounds sensible, of course. But at the time, physical therapists and clinicians were advised to only prescribe very light weights and that "care should be taken not to overtire the weakened muscles."

Dr. Delorme, however, believed weakened muscles need to be challenged. So he had patients perform seven sets of 10 repetitions of an exercise, using the maximum weight they could handle.

It proved quite effective.

Dr. Delorme continued to experiment, and in 1948, he published a paper showing that three sets of 10 repetitions were as effective for improving leg strength in polio patients as seven sets of 10.

Boom! A legacy is born.

It's worth noting: Although it became widely propagated as "three sets of 10," patients only did one maximal set. (They "warmed up" with sets of 10 reps at 50 and 75 percent of their max, respectively.)

One more bit of trivia: While Dr. Delorme called it "heavy resistance exercise" early on, he later found that "many physicians seemed uncomfortable recommending 'heavy weightlifting' to their patients."

His solution? Rebranding it as "progressive resistance exercise," a term that's still frequently used today.

Only there's a caveat: Dr. Delorme didn't come up with that name; his wife, Eleanor, did.

The invisible health risk you can't ignore

Here's a heavy, but timely topic: Can discrimination affect your clients' health? Spoiler alert: Yes, it can, according to a new study from multiple US universities. And this item will help you better understand what YOU can do for these clients. Because you can't control the world they live in, but you can take actions that'll help the people you're working with.

Coming up

In the issues that follow, we'll continue to review all the latest nutrition, health, and fitness research so you don't have to, share the most interesting studies you ought to know about, and then reveal exactly what the results mean for you, your clients, and your coaching practice.

Here's a taste of what's to come:

- **Diet war! Fasting vs Mediterranean vs Paleo**
- **Apple cider vinegar: Superfood or super fraud?**
- **Before/after photos: a troubling revelation**
- **Does keto improve endurance performance?**

References

1. Hengist A, Edinburgh RM, Davies RG, Walhin J-P, Buniam J, James LJ, et al. [Physiological responses to maximal eating in men](#). Br J Nutr. 2020 Aug 28;124(4):407–17.
2. Pasquet P, Brigant L, Froment A, Kopperi GA. [Massive overfeeding and energy balance in men: the Guru Walla model](#). Am J Clin Nutr. 1992;56:483–90.