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# Could that before-dinner drink make you eat more?

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In some people, alcohol causes the brain to focus on food aromas, study finds.

(HealthDay)—Having a drink before dinner really may make some people eat more—by focusing the brain's attention on food aromas, a small study suggests.

The effect is modest, and not universal, the researchers said. But the findings, reported in the July issue of the journal *Obesity*, may offer one explanation for the so-called "aperitif effect"—where some people feel hungrier when they imbibe.

"The joke is, every restaurant knows that if they give you a drink first, you'll eat more," said one of the study's authors, Robert Considine, a professor at the Indiana University School of Medicine, in Indianapolis.

In the new study, Considine and his colleagues tried to get at the biology underlying the effect. Using MRI brain scans, they found that, on average, alcohol made a particular brain area—the hypothalamus—more focused on food aromas, versus other types of odors.

The hypothalamus produces hormones that help govern various body functions, including hunger. And alcohol, Considine said, "seemed to direct the hypothalamus to pay more attention to food."

However, the findings don't mean weight-watchers can't enjoy a glass of wine with dinner, according to Martin Binks, an obesity researcher who wasn't involved in the study.

Binks pointed to several reasons: most of the time, alcohol increased study participants' food intake by only a small amount; one-third actually ate less; and the whole study group was in the normal-weight range.

"We know that in people who are obese, the brain tends to respond differently [to food], versus non-obese people," said Binks, an associate professor of nutritional sciences at Texas Tech University, in Lubbock, Texas.

Even more important, Binks said, appetite and weight control are extremely complex. And if there's one thing that's clear, "there is no one-size-fits-all diet, or magic bullet against obesity," he added.

"What's important about this study," Binks said, "is that it speaks to the complexity of appetite regulation. There are hundreds of influences on eating behavior, and this [alcohol intake] is one of them."

For the study, the researchers had 35 healthy women visit the lab on two separate days. On one day, the women received an infusion of alcohol, and on the other, an infusion of plain saline.

The researchers then used functional MRI scans to chart blood flow in each woman's brain as she was exposed to food aromas and other odors. Afterward, the study participants were offered lunch.

Overall, the researchers found, the women showed less brain activity in response to non-food odors after they'd received an alcohol infusion. Instead, the hypothalamus appeared more interested in food scents.

What's more, two-thirds of the study group ate a bigger lunch after the alcohol infusion.

On the other hand, one-third ate more after the saline infusion, too, the study found.

Considine agreed that the findings illustrate the complexity of appetite regulation.

As one example, he pointed to the fact that the study included only women. That, he explained, is because men and women typically process food aromas somewhat differently—so it's best to study the sexes separately.

"We think we'd see similar results in men, but we don't know that yet," he said.

Considine also agreed that people need not ban alcohol from their lives—partly because research suggests that a glass of red wine with dinner can be a heart-healthy habit.

"Our findings would not negate the potential benefits of red wine," Considine said.

But, he added, it's important for people watching their weight to

remember, first of all, that alcohol contains a lot of calories. And for some people, it might also boost food intake.

"In general, we do a lot of absent-minded eating," Considine pointed out. "Just be aware that alcohol might encourage that."

Binks made a similar point. "Notice how you personally respond to alcohol. Do you eat more?" he said.

But the broader message, Binks said, is that "complex neurochemical systems" govern appetite and weight control. "That's why it's not as easy as 'eat less, exercise more,' " he said.

**More information:** The Harvard School of Public Health has more on alcohol and health.