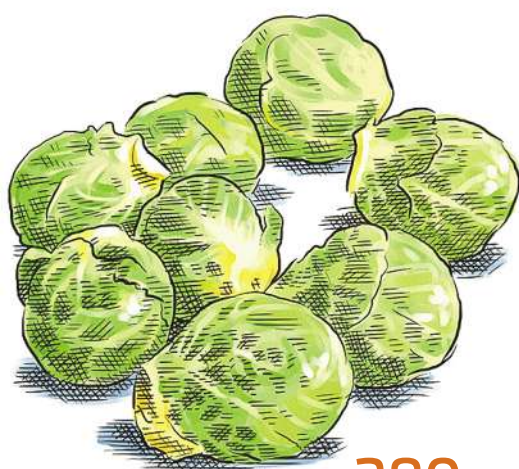


HEALTH & WELLNESS

Are Omega 3s All They're Cracked Up to Be?

Are All Omega-3s Alike?

EPA and DHA, primarily found in fish, have more established health benefits. ALA, found mostly in plants, is partially converted to DHA and EPA in the body.



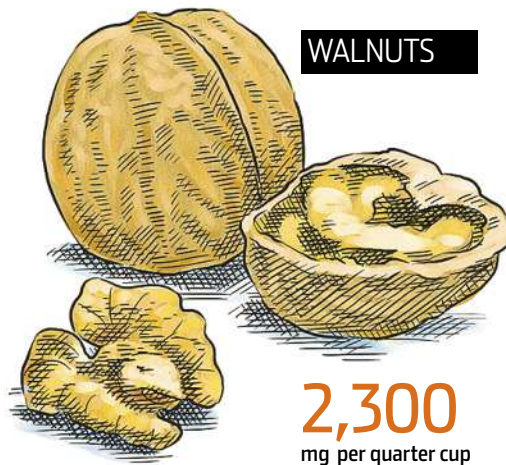
BRUSSELS SPROUTS

280 mg per cup



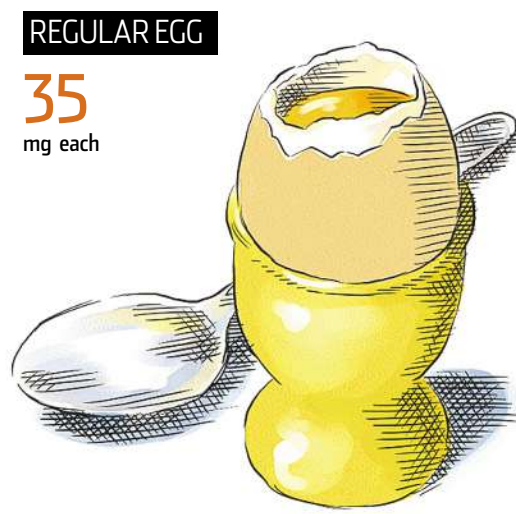
CANOLA OIL

1,332 mg per tablespoon



WALNUTS

2,300 mg per quarter cup



REGULAR EGG

35 mg each

'OMEGA-3 EGG'

(from specially fed chickens)

75 - 600 mg each

Source: AHA, WSJ reporting

Continued from page D1 standard has been set, but according to one lab, OmegaQuant Analytics, having 4% or less omega-3s out of total fatty acids is "undesirable" and indicates an elevated heart risk; 8% or more is "desirable." Most Americans score between 3% and 5% omega-3s, says William Harris, a veteran heart researcher who founded OmegaQuant. Thousands of studies since the 1970s have shown that people with high levels of omega-3s have lower triglycerides, lower blood pressure, lower LDL cholesterol, less inflammation and a lower risk of heart disease. Those with low levels of omega-3s

The Heart of the Matter

Scan this code to watch a video on omega-3 fatty acids, or see it at WSJ.com/Wellness.



are more likely to be depressed, to commit suicide and have memory loss and brain shrinkage as they age.

Many of those are observational studies that can't prove cause-and-effect; it may be that people who eat more fish have more healthy behaviors in general. The evidence from randomized-controlled trials is more mixed—but experts say that's not surprising in dietary studies, where researchers often have to rely on patients to accurately report what they ate over long periods.

Recent research offers a tantalizing mix of healing possibilities:

Alzheimer's disease and dementia: Several studies show that older people who eat plenty of fish have lower levels of beta-amyloid protein, associated with Alzheimer's, than those who eat less. But giving elderly people omega-3 fish-oil supplements didn't help ward off cognitive decline, according to a meta-analysis published in June. (The authors conceded

that the trials may not have been long enough to show much effect.)

Macular degeneration: A 2011 Harvard study found that women who ate fish at least once a week were 38% less likely to develop age-related macular degeneration than women who ate it less than once a month.

Attention-Deficit Hyperactivity Disorder: Children with ADHD tend to have lower omega-3 levels than their peers, and a study in the journal PLOS One last month found that DHA can improve reading and behavior in underperforming children. Still, there is no evidence to date that omega 3s are as effective as medication.

Depression: Rates of depression, bipolar disorder and postpartum depression are all lower in fish-eating populations, writes psychiatrist Drew Ramsey in his 2011 book, "The Happiness Diet." He also lists wild salmon and shrimp as the top foods for good mood, and encourages his patients to increase their fish intake. Supple-

ments with a high ratio of EPA to DHA appear to be most effective.

Cancer: Animal studies suggest that omega-3s may suppress the growth of some cancers. But a 2006 review of 40 years of research concluded that omega-3 supplements are unlikely to prevent cancer in humans.

Rheumatoid arthritis: Fish oil doesn't appear to slow the progression of rheumatoid arthritis, but small studies show that it helps reduce symptoms like joint pain and morning stiffness, and may allow people to lower their dose of anti-inflammatory drugs.

Fetal development: Omega-3s are needed for brain and vision development in unborn babies, but concerns about mercury levels have scared some pregnant women away from eating fish. Health authorities say that many good omega-3 sources, including shrimp, salmon and tuna, are relatively low in mercury. Nursing women and young children should

avoid shark, swordfish and tilefish.

Many physicians are more comfortable urging patients to eat more fish than take fish-oil supplements, since fish also contain protein, vitamin B-12, zinc and iodine.

Side effects from fish-oil supplements are minor—mostly gastrointestinal upset and burping with a fishy aftertaste. In doses of 3 grams and above, EPA and DHA can increase the risk of bleeding, so people on blood thinners should consult their physician before taking them.

What's the bottom line? Does it make sense to consume more omega-3s? "There is no single answer here," says Paul Coates, director of the Office of Dietary Supplements, part of the National Institutes of Health. "Given that there is a potential for benefit, and the harm has not yet been fully explored, at reasonable levels of intake, it's not a bad idea."

—Write to Melinda Beck at HealthJournal@wsj.com

New Strategy May Help Success of In Vitro Fertilization

Continued from page D1 lining of the uterus before transferring the embryo appears to double the rate of pregnancy. Dr. El-Toukhy says it is possible the scratch, which causes no ill effects, rallies the body's immune system, which in turn seems to enhance the ability to become pregnant. The researchers are planning a clinical trial to confirm the findings, he says.

With IVF, eggs typically are harvested from a woman who has had trouble conceiving and then fertilized with the man's sperm in a laboratory dish. In order to collect as many eggs at once as possible, women's ovarian follicles are stimulated with certain hormones. The longtime standard has been that one or more embryos are transferred to the woman's uterus immediately while any other embryos could be frozen for future use.

Over time, some doctors began to notice that their patients' pregnancy rates appeared higher when using recently frozen embryos rather than fresh ones. The reason might be that the stimulation of the follicles with drugs containing higher-than-usual levels of hormones, particularly estradiol, negatively impacts the uterine lining. Some women—as many as one in 10, according to the National Institutes of Health—develop a condition from the drugs known as ovarian hyperstimulation syndrome, which has been shown to increase the likelihood of pregnancy complications. By waiting at least one monthly cycle, however, the embryo can be transferred into a more natural uterine en-

vironment.

Also possibly contributing to frozen embryos' greater success is that the freezing and thawing process is a tough one to endure, and only the toughest embryos are likely to survive.

Anja Pinborg, a professor at the fertility clinic at Rigshospitalet, the hospital of Copenhagen University, says that using recently frozen embryos may be most appropriate for certain women, including those at risk of ovarian hyperstimulation. Also, women with few harvested eggs, say, fewer than 15, may not want to risk the embryos not surviving the freezing process, says Dr. Pinborg, who has conducted research demonstrating the boost in pregnancy rate using frozen embryos.

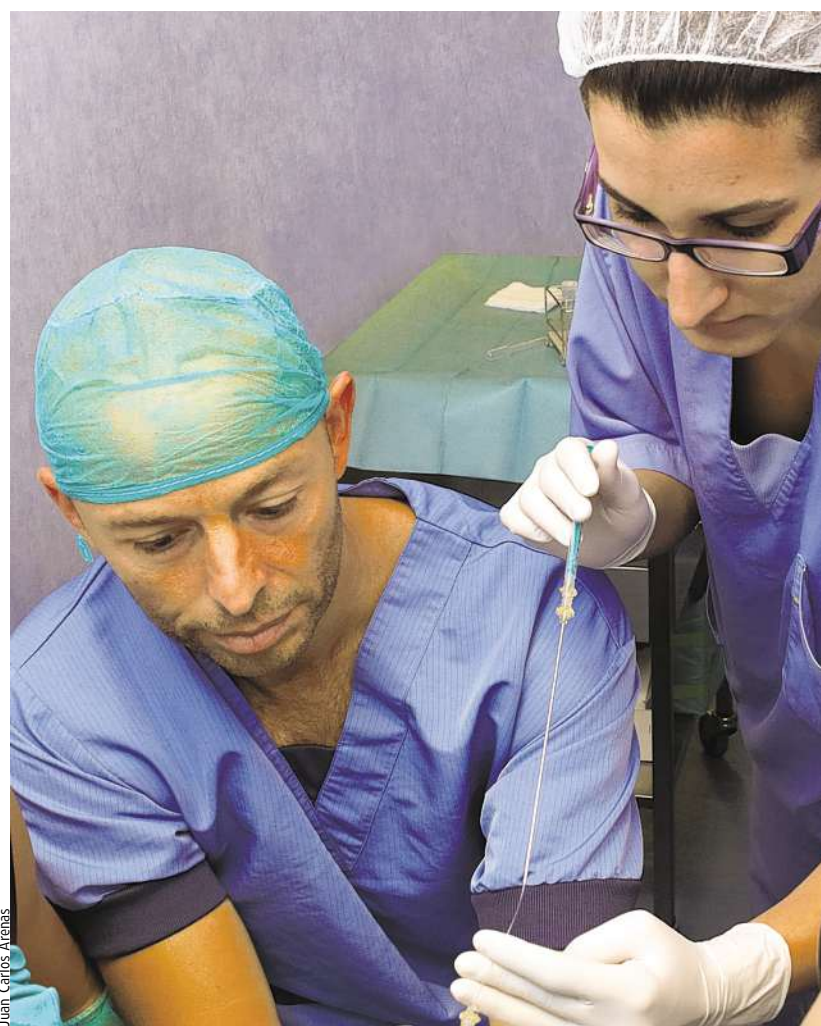
Another important question is the health of children born from frozen embryos. Many studies, such as one conducted by Dr. Pinborg in a study of about 1,000 Danish babies, have found that frozen embryo-born children are as healthy and in some cases healthier than those born from fresh embryos. But Dr. Pinborg noted in her study, published in Fertility and Sterility in 2010, that using frozen embryos increases the chance of newborns being large for gestational age. Though unclear if this leads to negative consequences, being born larger is a known risk factor for later obesity.

Some doctors say using recently frozen embryos could lead to safer pregnancies. Besides avoiding ovarian hyperstimulation, it might dis-

courage the practice of transferring more than one embryo to a woman's uterus, which can create added stress when there are multiple births. If using frozen embryos indeed increases pregnancy rates, and further research is still needed to confirm this, then more clinics and patients might choose a single-embryo transfer.

Miguel Angel Checa, head of assisted reproduction at Spain's Hospital del Mar CIHR Barcelona, co-authored the coming scientific paper in Fertility and Sterility that found higher pregnancy rates with recently frozen embryos. He presented his findings earlier this summer at the annual meeting of the European Society of Human Reproduction and Embryology in Istanbul. Dr. Checa says his review examined three separate randomized and controlled studies involving a total of 633 women with an average age of 35.

Dr. Checa says his clinic now has a policy of freezing all fertilized embryos for women who produce more than 10 eggs. An embryo is then thawed and transferred to the woman's uterus in her next monthly cycle, he says. The health of the egg is the most important factor in boosting pregnancy rates, Dr. Checa says. Still, his greatest challenge in using the freezing technique is persuading women to wait another month before receiving the transferred embryo, he says. "A woman who is waiting one, two years to conceive a baby—she thinks that month I want to be pregnant, I want to be a mother."



Dr. Miguel Checa, at left, head of assisted reproduction at Barcelona's Hospital del Mar, works with a hospital biologist to perform a frozen-embryo transfer last week.

Why We Are So Rude Online: Research Examines Reasons

Continued from page D1 were made up of close friends, the researchers say.

Most of us present an enhanced image of ourselves on Facebook. This positive image—and the encouragement we get, in the form of "likes"—boosts our self-esteem. And when we

BONDS: ON RELATIONSHIPS have an inflated sense of self, we tend to exhibit poor self-control.

"Think of it as a licensing effect: You feel good about yourself so you feel a sense of entitlement," says Keith Wilcox, assistant professor of marketing at Columbia Business School and co-author of the study. "And you want to protect that enhanced view, which might be why people are lashing out so strongly at others who don't share their opinions." These types of behavior—poor self control, inflated sense of self—are often displayed by people impaired by alcohol," he adds.

The researchers conducted a series of five studies. In one, they asked 541 Facebook users how much time they spent on the site and how many close friends they had in their Facebook networks. They also asked about their offline lives, including questions about their debt and credit-card usage, their weight and eating habits and how much time

they spent socializing in person each week.

People who spent more time online and who had a high percentage of close ties in their network were more likely to engage in binge eating and to have a greater body mass index, as well as to have more credit-card debt and a lower credit score, the research found. Another study found that people who browsed Facebook for five minutes and had strong network ties were more likely to choose a chocolate-chip cookie than a granola bar as a snack.

In a third study, the professors gave participants a set of anagrams that were impossible to solve, as well as timed IQ tests, then measured how long it took them to give up trying to solve the problems. They found people who spent more time on Facebook were more likely to give up on difficult tasks more quickly. A Facebook spokesman declined to comment.

Why are we often so aggressive online? Consider this recent post to this column's Facebook page, from someone I don't know: "Why should I even bother writing you? You won't respond."

We're less inhibited online because we don't have to see the reaction of the person we're addressing, says Sherry Turkle, psychologist and

Massachusetts Institute of Technology professor of the social studies of science and technology. Because it's harder to see and focus on what we have in common, we tend to dehumanize each other, she says.

ASTOUNDINGLY, Dr. Turkle says, many people still forget that they're speaking out loud when they communicate online. Especially when posting from a smartphone, "you are publishing but you don't feel like you are," she says. "So what if you say 'I

We tend to dehumanize each other online because it's harder to focus on what we have in common, an MIT professor says.

hate you' on this tiny little thing? It's like a toy. It doesn't feel consequential."

And for Facebook, its very name is part of the problem. "It promises us a face and a place where we are going to have friends," says Dr. Turkle, author of the book "Alone Together: Why We Expect More from Technology and Less from Each Other." "If

you get something hurtful there, you're not prepared. You feel doubly affronted, so you strike back."

It's high season for online bickering about politics, as Chip Bolcik well knows. Mr. Bolcik, 54, a TV announcer and registered Independent from Thousand Oaks, Calif., likes to pose political questions on his Facebook page. "I am very interested in how people think who have different views than mine," he says. "And sometimes I will write a provocative question for the entertainment purpose of watching people yell at each other."

Over the past few months, Mr. Bolcik lost two real-life friends because of online political spats. The first friend got mad at him after he posted a status update asking people to debate whether Mormons are Christians. ("You are so off base you don't know what you are talking about," she wrote on his page, followed later by: "You're an idiot.") Mr. Bolcik blocked her from his page. "I will allow free discussion until you irritate me," he says. Sometimes, he erases entire conversation threads.

The second friendship ended even more abruptly, after one of Mr. Bolcik's old friends offended several of his Facebook friends, as well as Mr. Bolcik himself, by repeatedly posting his views. "He was spouting about

politics, rather than discussing," Mr. Bolcik says. Mr. Bolcik wrote his friend and told him he was going to block him from the page if he didn't pipe down. In response, his friend told him off using vulgar language and unfriended him. "I was pretty upset," Mr. Bolcik says.

Still, he sometimes can't restrain himself from fanning the flames. When a political discussion thread becomes heated and he doesn't like the way it is going—"right or left," he says—he privately messages one of his "attack dog" friends and suggests he or she join the discussion. "I will say, 'Gee, this discussion doesn't seem right to me, what do you think?'" he says. "Then they will go on there and berate the person who is upsetting me, and I will look like the good guy."

Write to Elizabeth Bernstein at Bonds@wsj.com or follow her column at www.Facebook.com/EBernstein-WSJ.

Live Chat

Discuss online misbehavior at 11:30 a.m. EDT. Ask questions now at WSJ.com/Juggle. Scan this code to see a video at WSJ.com/Wellness.