Looking for a Little Normalcy

**What's News—**

**Business & Finance**

**World-Wide**

- **Japan's Abe** told parliament that the law governing the Bank of Japan could be revised if the central bank fails to hit its recently established 2% inflation target. A8
- **The euro's strength could** affect ECB growth and inflation forecasts, Draghi said, in comments suggesting that further big gains may prompt stimulus measures. A8
- **BP** is placing a big bet that by going to trial in a civil case next week it can hold down the cost of one of its last major potential liabilities for the Deepwater Horizon disaster. A1
- **Visa tracking** has emerged as a key immigration issue. A bipartisan Senate group says a better system to track foreigners who overstay their visas should be in place before anyone in the U.S. illegally can apply for citizenship under proposed new laws. The group aims to introduce a bill by March. A1
- **An estimated 40% or more** of people now in the U.S. illegally entered the country with a valid visa. A1
- **Chavez** made a surprise return to Venezuela, following more than two months in Cuba for cancer treatment. A7
- **The EU extended** its broad arms embargo on Syria for three more months, despite a push to aid the rebels. A7

**BP Faces New Bout Of Spill Liability**

**By Tom Fowler**

BP PLC already has agreed to pay more than $30 billion in fines, settlements and cleanup costs for the 2010 Deepwater Horizon explosion and oil spill. Now it is placing a big bet that by going to trial next week, it can hold down the cost of one of its last major potential liabilities for the disaster.

The London-based oil company says both the law and the facts of the case make facing a federal judge in a trial a safer bet than reaching a settlement with Gulf Coast states, businesses, individuals and the federal government for environmental-related claims.

*Image: Back to class: Malian schoolgirls listen to their teacher in Gao on Monday, a week after French and Malian...*
Hard-Wired to Hate Exercise?
To Explain Why People Don’t Work Out, Scientists Look to Chemistry, Biology

Couch Bound
Only 3.5% of Americans ages 20 to 59 get the recommended amount of exercise.

Starting Line
52% of baby boomers report no physical activity.

A Color Catalyst
People who viewed scenes of green trees while cycling were happier with their workout than those who viewed black-and-white images.

Pain vs. Gain

The Right Fit
It wasn’t until age 48 that Sharon Weinbar (in black) of Hillsborough, Calif., found a workout she looked forward to: rowing.

Feel the Burn
Everyone has a ‘ventilatory threshold,’ the point at which less oxygen is coming in than carbon dioxide going out.

Breathing Hard
A sedentary person’s ventilatory threshold can be as low as 35%. Elite athletes often push theirs to 85%.

Guilt Is Good...
...but not if someone else is doing the badgering. Guilt from within can be a motivator.

Opting Out
People who continually push themselves to the point of discomfort lose motivation faster. About half of those who start an exercise program quit within six months.

Eyes on the Prize
Don’t think of sweating and being winded as bad signs, experts say, but as evidence of progress toward fitness goals.

By SHIRLEY S. WANG

When it comes to exercise, many people seem to fall into two different camps: those who love a vigorous, sweat-soaked workout and those who view it as a form of torment.

With hopes of getting more people up and moving, scientists are looking at the body’s biological and chemical processes for clues to understanding what’s behind differing attitudes toward exercise. That could mean there are factors beyond motivation and discipline to explain why some people enjoy exercising and others don’t.

One finding so far: How people interpret their body’s sensations during and after exercise plays a large role in whether they enjoy it. Also, researchers at Iowa State University found that people’s physical capacity could be much lower than many realize, so many people push beyond their limits without realizing it. For example, for sedentary people, just cooking dinner could count as exercise and they need to build up to even walking, the researchers found.

Dan Cederholm has tried for years to find some type of exercise he could stick with. He finds the gym boring and basketball and baseball leagues unappealing. As for running? “My shins always hurt like hell,” says Mr. Cederholm, 38, a Web designer from Salem, Mass.

His friend Rick Johnson, on the other hand, competes in 20 road races a year. He remembers that even as a kid, when he was told to run a lap during gym class, he would ask to do extras. “To me, it seems very foreign to say I don’t enjoy sweating or running,” says Mr. Johnson, 41, an editor who also lives in Salem.

From couch potatoes to Olympic athletes, everyone has a physical capacity for exertion, beyond which the body becomes stressed and begins to feel bad. How much stems from genetic factors — things like lung capacity, oxygen transport and the rate at which oxygen is used in the muscle cells — is still a subject of scholarly debate. Estimates vary from 10% to 30%, says Pan-Elliotimmon Ekkekakis, a professor of kinesiology at Iowa State who has been studying the psychophysics of exercise.

But many sedentary people push beyond their intrinsic range when they try to exercise too quickly or intensely, which can make them hate the activity and want to stop, says Dr. Ekkekakis.

The idea hinges on something called the “ventilatory threshold.” Normally when people breathe, they expel an amount of carbon dioxide that is equal to the amount of oxygen taken in. But beyond the ventilatory threshold, the release of carbon dioxide begins to exceed the body’s intake of oxygen. This excess release of carbon dioxide is a sign that the muscles have become more acidic, which the body finds stressful.

For most individuals, the ventilatory threshold is around 50% to 60% of the way to their maximum capacity, though there is tremendous individual variation. For elite athletes, the threshold may be as high as 80%, while sedentary people may hit it at 35%.

By using tricks such as listening to music, people can continue to feel good even slightly past their ventilatory threshold, Dr. Ekkekakis and his colleagues have found. As people approach their maximum capacity, however, the feel-bad reaction is unavoidable.

And while both ventilatory threshold and maximum capacity can be slowly increased, people...

For more tips, D3
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People have to have enough positive experiences to stick with exercise over time so they actually can boost these limits.

In continuing studies of obese, sedentary but otherwise healthy middle-aged women, Dr. Ekekakis found that some individuals reach a threshold after just one minute at a slow pace on a treadmill. Some women’s thresholds are so low that they would reach their maximum capacity simply by doing the dishes or cooking, says Dr. Ekekakis.

This means that though many weight-loss interventions suggest walking as the primary form of physical activity, it is probably too hard for many people.

How people interpret some of the physical sensations of exertion or fatigue, such as buildup of lactic acid in muscle or increases in body temperature, can also influence whether they stick with an exercise routine. Some people tend to read such physical cues as a sign of a good workout or progress, whereas many sedentary people just find them uncomfortable or painful, say researchers.

Elite athletes have even been dubbed “benign masochists” because they appear to enjoy the pain of exertion, says Dominic Micklewright, a researcher and curriculum director at the Centre for Sports & Exercise Science at the University of Essex in the U.K.

The sensation of how hard one is working also can be influenced by some surprising external factors. In one study published in the journal Environment Science and Technology last year, Dr. Micklewright and his team examined how the color of the imagery participants viewed while cycling would affect their mood and perceived feelings of exertion. After viewing scenes that involved green trees, participants reported feeling happier and their exercise less difficult than when the same scenes appeared in black-and-white or red, suggesting that exercising in nature or simulated green spaces could be helpful for exercisers, says Dr. Micklewright.

Researchers have found several other psychological factors and cognitive tricks that can help boost the motivation to move. Three that appear critical include how competent a person feels, whether he or she feels they have some control or choice in the matter and, for many, whether the activity fosters social relatedness, says Sarah Ulrich-French, a professor in kinesiology at Washington State University in Pullman, Wash.

Adults can be discouraged from exercising by not knowing what to do or how to do it. Those who were athletic in childhood may be frustrated by how their abilities have deteriorated over time. Dr. Ulrich-French suggests that adults try new activities where they won’t be comparing themselves.

For Mr. Cederholm, the Web designer from Salem, going back to hockey, which he had enjoyed as a boy, wasn’t an option. But the first time he played squash was an epiphany. “It was fun at the level that you don’t even realize you’re sweating your butt off,” says Mr. Cederholm, who now plays three to four hours a week with a friend or practices shots by himself on the court.

Sharon Wiemar, a venture capitalist in Hillsborough, Calif., became a rower at the age of 48 because she enjoys the feeling of speeding along on the water, discussing her workout routines with her teammates and having a coach who helps her get better. “A couple months into rowing, it was like a light switch going on in my head,” she says.

Once a “geeky, bookish” child who was always picked last for gym, Ms. Wiemar says rowing is now part of her identity and has prompted her to think of herself as an athlete.

And at age 51, she says she enjoys the physical feeling of pushing herself. “I don’t even feel like I’ve reached the maximum,” says Ms. Wiemar. “I’m in better shape now than I was 10 years ago. Maybe I’ll be in even better shape in a decade.”

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