



# HUMAN EVOLUTION

## May Hold The Key To Understanding Back Pain: STUDY

Press Trust Of India

The evolutionary history of humans may explain why some people are more susceptible to a particular stress fracture known as spondylolysis that often affects athletes, according to study which may lead to new ways of preventing and managing back pain.

In the study, published in the journal *Evolution, Medicine, and*

Public Health, scientists used advanced 3D shape analysis techniques to compare the final vertebrae of humans with and without spondylolysis, to the same bones in our closest living relatives -- the great apes.

The researchers, including those from the University of Sydney in Australia, said that the differences between human vertebrae with spondylolysis, and that of great apes were greater than those between

healthy human and ape backbones. "Because spondylolysis only occurs in humans and does not affect our great ape cousins, it has long been assumed to be the result of increased stress placed on our spine by our unique ability to walk upright on two legs," said Kimberly Plomp, study co-author from Simon Fraser University (SFU) in Canada.

"However, there have been few

attempts to test this hypothesis," Plomp said.

According to the researchers, people who developed spondylolysis have vertebrae that are more wedge-shaped, where the front is taller than the back, in addition to other subtle shape differences.

They said these differences are consistent with the vertebrae having "overshot" the optimum for walking on two legs,

leaving the individual prone to developing spondylolysis.

The scientists said humans with intervertebral disc hernias have vertebrae that are more similar in shape to those of modern chimpanzees, and those of our fossil ancestors, than are humans with healthy spines.

"We can picture vertebral shape variation in humans as a spectrum with one end having

vertebrae with an ancestral shape and the other end having vertebrae with exaggerated bipedal adaptations," said Mark Collard, study co-author from SFU.

"Where an individual's vertebrae lie within this distribution has a bearing on their spinal health," Collard said.

Based on the findings, the researchers said the evolutionary history of humans can have a di-

rect bearing on current societal issues such as the prevention and management of back pain.

"For decades, scholars have assumed that the reason humans are so commonly afflicted with back problems is because we walk on two legs," Plomp said.

"Our studies are the first to show a clear link between the shape of your vertebrae, bipedalism, and the health of your spine," she added.

## Don't Let A Healthy Diet Control Your Life

Allison C. Kelly / Khaleej Times

Many of us feel dissatisfied with our bodies, especially when we see thin, attractive people.

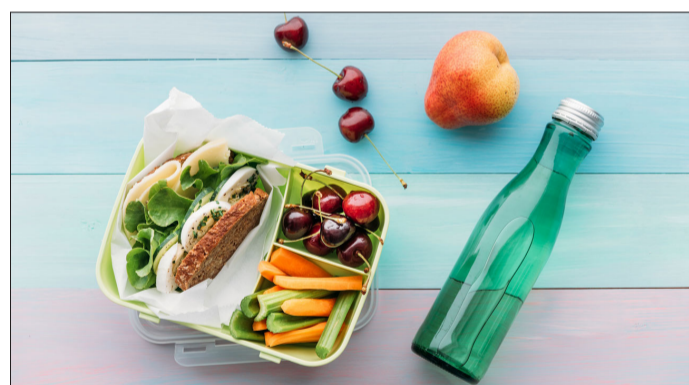
Indeed, a quick scroll through celebrity posts on Instagram can make fad diets seem like the path to happiness. A little willpower for a little while, and maybe we too will feel beautiful. After all, cutting sugar and reducing carbs essentially guarantees that the fat will fall off us, right?

Maybe you've tried this out, excited about potential results and the self-discipline you'll show in the process. "I don't need bread; lettuce buns are just as good!" "Who needs chocolate when you've got gum?" "Pasta is overrated; zucchini noodles here I come!" Within a week, you've lost some weight, and your clothes are fitting a bit looser. It didn't even feel that hard to cut out those foods.

You keep going and the following week is also a success. You're even enjoying the new obsession of carefully selecting and preparing your food, eating far more consciously crafted lunches than your colleagues. You can't help but feel a sense of pride when your friend comments that you've been looking thinner and asks for your secret. A few more pounds fly off and your confidence is soaring.

As time passes, you're starting to wonder whether you really need to be so rigid with your eating. Perhaps you can be 'bad' from time to time given that you're usually so 'good'. You loosen your rules. No carbs at lunch, but dinner is okay. Eat all I want before 7 pm, but nothing after that. Desert once a week should be fine.

This works for a bit, but soon situations arise where even your relaxed rules feel too strict. So, you cave and break your seemingly solid plan. Much to your dismay, your clothes start to feel a bit tighter and the number on the scale starts to creep upward. You start to question how you could have let this happen. Guilt



ensues and you vow to make reforms next week.

Throughout all of this, something else starts to happen: It feels as though food has complete control over your life. You're thinking about it all the time, constantly evaluating your dietary choices and the impact these are having on your weight. You're experiencing strong cravings for foods that you know you'll feel guilty eating. Is this just more evidence that you need to keep dieting? Is there something wrong with you?

No; this is actually a natural consequence of dietary restraint. When we are engaged in dietary restraint, we are trying to watch what we eat and have a mental sense of the types and quantities of food we would like to be avoiding, whether or not we're being successful. There's a lot of research showing that restrained eaters are much more likely to obsess about food and to develop overeating habits than intuitive eaters, who eat what they feel like according to how hungry and full they feel.

This knowledge might inspire you to try and let go of restrained eating and work toward eating more intuitively - based on physical hunger and cravings rather than mental rules. But this might feel scary, especially in today's diet culture. The initial phases of reducing dietary restraint require deliberate practice and planning. But with time, intuitive eating comes to feel natural and freeing. It can also help to know that although intuitive eaters don't

have rigid rules around food, they tend to eat nutritiously and have lower body-mass indices than restrained eaters, in part because dieting often causes weight gain over time. However, beware of approaching intuitive eating with the goal of weight control as this will keep you in a restrained mindset without realising it.

If you want to experiment with switching from restrained to intuitive eating, here are some initial steps you can take.

1. If you currently try to limit your intake of certain foods or food groups, start planning to allow yourself to eat those foods. If you limit carbs, pack a sandwich for lunch instead of salad.

If you do this, it will be important that you don't remove carbs from other parts of your day as doing so will just refuel the restrained mindset.

2. Identify your other rules around eating and make a deliberate plan to break them. For example, if you have a rule not to eat during a certain time of day, start having a planned snack every day in that time frame but be sure you don't 'pull back' at other times of day to compensate. Otherwise, you will still be a victim to the restrained mindset.

3. Set out to eat three meals and three snacks a day. This helps to convince your mind that you're not actually trying to restrict eating, and the sense of restraint can fade away.

4. Notice what happens as you start to deliberately eat in this more flexible way. Does it feel more allowing it to settle where it wants to settle. This is ultimate freedom.

## First Baby Can Spark Jealousy In Anxious Parents

Agencies

Expectant parents, please take note. You must address relationship anxiety before the first baby is born as researchers have revealed that a new child can spark feelings of jealousy in a person who already fears being abandoned by his or her partner.

The study, published in the *Journal of Social and Personal Relationships*, found that partners who showed signs of relationship anxiety before the birth of their first child were more likely to be jealous of the child after it was born.

"You might think, who could be jealous of a baby? But if you already have fears of rejection, it may be scary to see how much attention your partner showers on your new child," said study lead author Anna Olsavsky from Ohio State University in the US.

The researchers also found that when either partner was jealous of the baby, couples experienced a decline in their satisfaction with their relationship after becoming parents.



For the findings, the research team used data from the New Parents Project, a long-term study co-led by Schoppe-Sullivan that is investigating how dual-earner couples adjust to becoming parents for the first time. In all, 182 couples, most of whom were married, participated in this study.

During the third trimester of pregnancy, mothers and fathers completed a variety of questionnaires, including one that examined "attachment anxiety."

According to the research, they were asked how much they agreed with statements like "I'm afraid that I will lose my partner's love" and "I worry about being abandoned."

Three months after their baby was born, the couples completed a measure of jealousy of the partner-infant relationship. They reported how much they agreed with statements like "I resent it when my spouse/partner is more affectionate with our baby than s/he is with me."

As they predicted, the researchers found that people with relationship anxiety before the child's birth were more jealous of the child three months after arrival.

But it wasn't just the anxious partner who felt jealous of the baby - even their spouses felt higher levels of jealousy, they added.

The reason may be that spouses of anxious partners are used to receiving a lot of attention from their partner, and that responsiveness may lessen when the baby arrives, the study said.

"It is not just that you aren't receiving all the attention that you used to receive, but also that the child is receiving that extra devotion that once was given to you," Schoppe-Sullivan said.

The researchers went into the study believing that anxious fathers may be most vulnerable to feeling jealousy of the new child because dads tend to spend less time with infants than moms do. But that's not what they found.

According to the study, anxious moms and dads were equally likely to be jealous of the time their partners spent with the new baby.

## Sugary Diet Can Promote Serious Gum Infections

Agencies

Sweet soft drinks and lots of sugar increase the risk of both dental cavities and inflammation of the gums -- known as periodontal diseases, say researchers.

"Sugar hasn't traditionally been associated with the development of periodontal diseases," said study lead author Bente Nyvad from Aarhus University in Denmark.

According to the researchers, back in the 1970s, two American researchers suggested that a diet, which was high in carbohydrates, could be a common risk factor for both dental diseases

and inflammatory diseases such as diabetes, obesity and heart disease, but this knowledge was largely forgotten again.

The current study, published in the *Journal of Oral Microbiology*, suggests that a sugary diet can also promote periodontal diseases.

"Today, there is general agreement that the above-mentioned diseases are associated with a high sugar intake. However, a hypothesis that could link and explain the two major dental diseases, caries and periodontitis, has been lacking," Nyvad said.

In the new research project, the researchers have arrived at



a common hypothesis for the development of the two major dental diseases.

The hypothesis is based on the biochemical processes that take

place in the bacterial deposits on teeth when you add copious amounts of nutrients to the bacteria, particularly when you eat sugar.