

Reading

Reading Passage 1

You should spend about 20 minutes on **Questions 1-13**, which are based on **Reading Passage 1**.

Don't go bananas: Should we be cutting down on the fruit we eat?

News that some zoos have stopped feeding monkeys fruit has led people to suggest humans avoid it too. But that ignores a few crucial details, says James Wong.

If you have ever delved into the world of online diet advice, you might have heard the claim that modern fruit is so filled with sugar that it is unsafe for zoo animals. It might have come with links to media reports with headlines like "Zoo bans monkeys from eating bananas". The claim that fruit is no longer a healthy part of the diet – for humans as well as animals – has gathered thousands of likes and shares from low-carb devotees around the world. But how good is the evidence behind these claims? As a botanist who knows rather a lot about fruit, but very little about monkeys, I decided to go straight to the source, and talk to the zoologist whose work first spurred these stories.

Amy Plowman is director of living collections at Paignton Zoo in Devon, UK, and has done pioneering research on the diets of non-human primates in captivity for the last 10 years. She observed that the food given to zoo monkeys was often a poor reflection of what they ate in the wild. In fact, the diet of these animals in some zoos is more like the food preferences of their human keepers. "We have, whether consciously or unconsciously, assumed that human food is suitable for non-human primates," she says. In some leading zoos, primate species whose diet in the wild is made up overwhelmingly of leaves are routinely fed chicken, eggs, cheese, yogurt, bread and noodles. This understanding of primate nutrition is, Plowman says, "far removed from reality".

To create a diet as similar to the monkeys' natural diet as possible, she eliminated energy-dense items such as meat, dairy and grains, and reduced the amount of fruit and some of the more calorific vegetables. The monkeys' new regime consisted essentially of specialist primate feed pellets, leafy vegetables and fresh tree leaves. In a very short time, Plowman and her team noticed dramatic improvements in the animals' health, with reduced obesity, improved dental health and even behavioural improvements. The press enthusiastically

reported the story, focusing almost exclusively on the angle of zoo monkeys no longer being fed bananas. When other institutions, such as Melbourne Zoo, started to follow suit, it triggered a further flurry of headlines.

These news reports rarely mentioned that many of the animals involved in these new feeding regimes, such as the red pandas in Melbourne Zoo, are essentially leaf eaters and don't actually eat much, if any, fruit in their natural habitat anyway. But then, pandas being fed bamboo instead of fruit is less of a story. Those who linked the switch to the benefits of particular diets in humans also failed to point out that the new regime given to these animals involved eliminating all meat and dairy too, and swapping to an essentially 100 per cent leaf diet. Advocates of ultra-low carb and meat-heavy "carnivore" diets for humans were therefore sharing research whose findings were contrary to their claims.

What does Plowman think of this interpretation of her findings in zoo animals being used as justification for excluding fruit from human diets? "I wasn't aware of this and find it very surprising," she says. "Fruit and non-leafy vegetables have a much lower energy content than most of the foods available to humans, so are a very healthy option for us given most of us consume too much." Stressing that her work on zoo animals couldn't be translated to humans, she went on to say that the dietary alterations she made were to replace foods higher in sugar and starch with indigestible fibre, not replace it with fat and protein. There is plenty of evidence, she says, that a switch from starch to fat and protein is "definitely not" a good thing.

The evidence suggests she is right. In several exhaustive reviews of the best scientific studies we have to date, higher fruit consumption has been consistently linked to a lower incidence of obesity in humans, as well as a reduced risk of cardiovascular disease and even certain types of cancer. Perhaps more pertinently, if you or I were to put on a leaf-only diet we would need to eat more than 300 cups of chopped, raw lettuce a day. That wouldn't be pretty. We would struggle to get anywhere near the adequate amount of calories to meet our daily needs, and would quickly succumb to nutrient deficiencies. It seems, much like zookeepers of the past, our close-relatedness to monkeys means many of us, low carb activists included, can't help but project their needs onto ourselves and vice versa. But to do so requires us to ignore one small detail, which even I as a botanist can confirm: Humans aren't zoo monkeys. Shocking, I know.

Questions 1-3

Answer the questions below.

Choose **NO MORE THAN TWO WORDS** from the passage for each answer.

Write your answers in boxes 1-3 on your answer sheet.

1. What component in fruit that makes it believed to cause harm to animals in zoos?
2. Which group of people had a great interest in the claim of fruit being unhealthy for humans?
3. On what subject has Amy Plowman pioneered research about diets for the last decade?

Questions 4-8

Complete the summary below.

Choose **NO MORE THAN TWO WORDS** from the passage for each answer.

Write your answers in boxes 4-8 on your answer sheet.

According to Amy Plowman's observation during her research, what monkeys feed on in zoos is quite different from their food in 4 In several zoos, the food given to these animals more closely resembles what 5 favour as their food. Primate species in some famous zoos are given foods differing from their main food which is leaves.

In her attempt to create a diet which closely resembles the natural diet of monkeys, Plowman removed foods high in calories, cut down on fruit and some 6 which contain a lot of calories. After a short time, it is recorded that there were positive changes in the 7 of the monkeys. This story was quickly delivered in news; however, the lack of 8 in the new diet was basically the only thing the press paid attention to.

Questions 9-13

Do the following statements agree with the information given in Reading Passage 1?

In boxes 9-13 on your answer sheet, write:

TRUE if the statement agrees with the information

FALSE if the statement contradicts the information

NOT GIVEN if there is no information on this

9. Fruit is not a main part in the natural diet of red pandas in Melbourne Zoo.
10. That people advocating for the elimination of fruit from human diets based on Plowman's research findings was something she already expected.
11. Plowman believes that her research has direct relevance to human's diets.
12. Eating a higher proportion of fruit every day is the best way to fight cancer.
13. An all-leaf diet will only provide us with just enough energy on a daily basis.