

DIET

Bamboo:

You can't talk about a giant panda's diet without talking about bamboo. Bamboo comprises more than 95% of a giant panda's diet, and is as much as 99% of a wild giant panda's diet. In the summer, giant pandas eat mostly leaves, while in the fall, they eat young branches in addition to the leaves. Giant pandas can eat most of the bamboo species found in their habitat. Although most giant pandas depend on about 10 kinds of bamboo, they can eat more than 40 different species of the plant.

What's most remarkable about the panda's diet is that is that giant pandas have the stomachs of carnivores, and can't even digest the plant fiber (cellulose) of bamboo efficiently. They only digest approximately 20% of what they eat, compared to other herbivores (plant-eating animals) which digest 80 percent of the food they eat, and humans, who digest 52 to 65 % of their meals. Pandas must spend as much as 16 hours a day feeding, due to the low nutrient content of the bamboo they are able to digest, eating between 40 and 60 pounds daily.

While panda stomachs are not well-adapted to eating bamboo, their jaws and paws are. They have a very large head, broad and flat molars, and well-developed jaws and jaw muscles capable of the grinding power they need to penetrate the tough outer shell of bamboo. With their elongated wrist bone (a pseudthumb) holding the stems steady, they can pluck, break and peel bamboo stems with dexterity. By raking the bamboo branches through their mouth, they can collect bunches of leaves that they then can retrieve with one paw and hold steady with their thumbs while eating, focusing on the most nutritious parts of the bamboo.

Everything else:

In the wild, the remaining one percent of a giant panda's diet may include bulbs such as iris and crocus,

wildflowers, vines, fish, eggs, grasses other than bamboo, or small animals such as rodents or carrion (dead animals).

In the United States, most zoos feed their pandas leaf-eater biscuits. Leaf-eater biscuits are a reddish color, and are made primarily of soybean meal, corn gluten meal, and sugar beet pulp. They contain vitamins and minerals to form a nutritious and complete diet for leaf-eating primates, as well as many other zoo animals, including giant pandas.

The National Zoo pandas also eat apples, pears, cooked sweet potatoes, and carrots. Their favorite reward is a fruitsicle with sliced and pureed fruit.

Zoo Atlanta pandas eat apples and pears, and love bananas. Yang Yang will also eat sweet potato, which Lun Lun won't eat. Neither adult will eat carrots. Mei Lan is still nursing, but enjoys her mother's bananas.

Pandas at the San Diego Zoo enjoy carrots and yams. On special occasions, the pandas receive ice cakes filled with special treats, such as fruit.

The pandas at the Memphis Zoo are part of a research study on nutrition and food selection of captive pandas. Both Ya Ya and Le Le love apples. Le Le will also eat sugar cane, raisins soaked in water, some dry fruit, but he loves bamboo and is a voracious eater. Ya Ya, on the other hand, will eat anything as a treat: watermelons, strawberries, cantaloupe. She adores fruitsicles while Le Le will sit and watch his melt.