

## Enzymes in Primary School

Most children with CF are pancreatic insufficient, meaning their pancreas does not produce the enzymes that are needed to break down food for digestion. This can make it very difficult to absorb nutrients from food and maintain a healthy weight. As a result of this, pancreatic enzyme replacement therapy is needed to help digest food.

### Pancreatic Enzymes

Pancreatic enzymes are taken with all meals and snacks containing carbohydrates, fat and protein. They don't need to be taken with simple sugars such as fruit, lollies, juice, cordial, and water. The enzymes travel down to the stomach where they work to help break down food. Without enzymes, food will not be properly digested and the child may have tummy aches and diarrhoea.

Enzymes are available in two forms; microspheres for babies and young children and capsules for older children and adults. **Like vitamins, they are not harmful to other children.**

### Enzymes at School

By primary school, most children will be able to swallow capsules, but some younger children may still be using the microspheres. If you have a student using microspheres, these need to be mixed with apple puree and taken via spoon.

Once they can swallow capsules, most children should have enzymes in their lunchbox with dosage calculated by the parents and child at home. Children will still need supervision to ensure enzymes are taken.



Enzymes need to be taken immediately before eating. They are only effective for about 30 minutes, so food needs to be consumed within this time. If the student takes longer than 30 minutes to eat, they will require more enzymes.

Extra enzymes should be kept at school for class parties, cooking, canteen snacks or birthday cakes. In the early school years, teachers will often store extra enzymes in the classroom and parents will communicate dosage. Older children will manage their enzymes independently and carry extra enzymes in their school bag to take when they need them.

Enzyme dosage is different for everyone but is generally based on the amount of fat in the food.

Parents will calculate dosage for younger children and supply this information to the school. Older students will calculate their dosage independently. Enzyme processes and dosages should be detailed in the child's Medical Plan.

If enzymes are skipped or not enough are taken, the child may have tummy aches and diarrhoea. Teachers should be aware of the importance of allowing the student to go to the bathroom as needed. If given too many enzymes there are no immediate side effects, but over a few weeks they may become constipated.

## More Information

Enzymes can be well managed in an early learning environment with good communication with the child's parents. This will ensure both the staff and family feel confident and the child receives the enzymes required at each meal.

For more information about CF, we have free eLearning modules, including one specific to enzymes, as well as other resources for educators, available on our [CFSmart website](#).