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# Biotix

## LACTASEBIOTIX

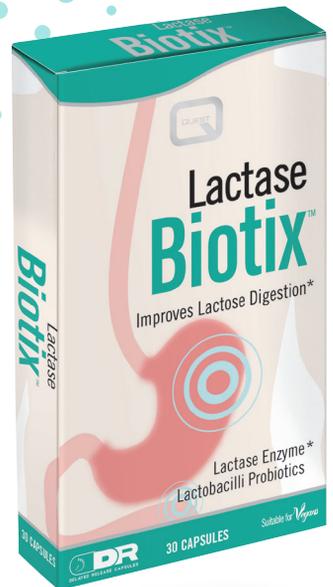
Improves lactose digestion to help reduce symptoms associated with lactose intolerance such as bloating and flatulence.

### Nutritional Information

One capsule provides:

Lactase	200 mg
Lactobacilli Culture	30 mg
Providing 2 billion ( $2 \times 10^9$ ) L.rhamnosus, L.bulgaricus	

One or two capsules with meals containing milk or dairy produce.



## SUMMARY

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- Combination of probiotic lactobacilli bacteria and lactase enzyme to improve lactose digestion.
- Reduces cramping, bloating, flatulence and other gastrointestinal side effects from dairy consumption.
- Encapsulated in a DR capsule, which delivers the active ingredients directly into the intestine where lactose needs to be broken down.

## DESCRIPTION

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Helps reduce symptoms associated with lactose intolerance such as bloating, diarrhoea or flatulence. Lactase enzyme improves lactose digestion in individuals who have difficulty digesting lactose in milk or dairy produce. Lactobacilli bacteria create lactic acid by breaking down lactose and other carbohydrates. The combination of lactase enzyme and lactobacilli bacteria have been shown to work synergistically for more effective results. LactaseBiotix may be chosen by those who have difficulty in digesting the lactose found in milk and dairy products.

## LACTOSE INTOLERANCE

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**Lactose indigestion:** Lactose is a sugar contained in dairy products. To be absorbed, lactose needs to be broken down in the intestine by the enzyme lactase (phlorizin hydrolase). Lactose gets broken down into glucose and galactose in the presence of lactase enzymes. If this does not happen, lactose causes irritation and is fermented by bacteria causing the typical symptoms of gas, bloating and diarrhoea. Individuals suffering from lactose intolerance are unable to digest significant amounts of lactose because of a genetically inadequate amount of lactase. Common symptoms include abdominal cramping, belching, flatulence, and diarrhoea following the ingestion of dairy foods<sup>1</sup>.

**Epidemiology:** Lactose intolerance is present in up to 15 percent of people of northern European descent and higher in other ethnic groups, especially in Asian and Black populations<sup>1</sup>. This health issue is often undiagnosed due to the similarity in symptoms to other gastrointestinal dysfunctions.

## HOW DOES LACTASEBIOTIX SUPPORT THE DIGESTION OF LACTOSE?

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**Lactase enzyme:** 200 – 600mg of supplemental lactase has been shown to help alleviate the symptoms of lactose maldigestion in lactose intolerant individuals.<sup>2,3</sup> Lactase enzyme contained in supplements are derived from yeast or fungi.

**Lactobacilli probiotic cultures:** Lactobacilli probiotics have significant lactase activity, producing enzymes that breakdown lactose in the intestine. Lactase taken together with probiotic bacteria cultures may be more effective for lactose maldigestion than taking lactase alone.<sup>4,5,8</sup>

From the various strains of lactobacilli bacteria, *L.bulgaricus* has shown positive results in lactose intolerant patients challenged with high amounts of lactose (e.g. >15mg).<sup>6,7</sup>

## FEATURES

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- With DRcaps, a unique delayed release capsule shell that protects sensitive bacteria from stomach acid.
- Synergistic formula providing lactase enzyme and lactobacilli bacteria for more effective results.

## THE ADVANTAGE OF DRCAPS™

DRcaps are designed to delay the release of probiotic bacteria, protecting the probiotics from stomach acidity and allowing the probiotics to be most effective where they need to be - directly in the intestine.



### Images of DRcaps disintegration performance in human subject\*



\*Subject consumed light breakfast 30 minutes prior to dosing DRcaps containing 300mg of lactose, 10mg of which was radiolabelled to allow anterior and posterior images taken every 5 minutes after dosing.

## HEALTH NEEDS



GUT AND DIGESTION



SPECIALIST HEALTH

## SCIENTIFIC REFERENCES

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