

# DAOhead®

Gastro-resistant tablets filled capsules

**DR**  
HEALTH  
CARE  
Innovating in  
DAO Deficiency

## Patient information

DAOhead® is a food for special medical purposes for the dietary management of migraine caused by DAO Deficiency.

### What is histamine?

Histamine is an essential molecule, a transmitter that belongs to the so called group of biogenic amines and that is naturally present in many foods as well as inside our cells. Normally, the intake of histamine contained in food does not cause any problem, since it is quickly processed and metabolized by the Diamine Oxidase enzyme (DAO).

### What is DAO?

DAO is the main enzyme for the metabolism of ingested histamine. It is mainly located in the intestinal epithelium, where it absorbs and degrades the ingested histamine preventing it from passing into the bloodstream.

### What is DAO deficiency?

It refers to a deficiency in Diamine Oxidase (DAO) metabolism activity or when there is an imbalance between the ingested histamine and the enzyme capacity to metabolize it. As histamine has not been properly metabolized and degraded, it passes into the bloodstream triggering different symptoms. The most common reactions of DAO deficiency are migraine and headaches, although other symptoms may occur such as:

- Digestive disorders such as bloated feeling, flatulence, constipation or diarrhoea.
- Pain and muscle contractures and osteopathic pain.
- Skin disorders, such as dry or atopic skin.

### Which foods contain histamine?

Histamine is present in all foods a greater or lesser extent, whether plant or animal origin. Food undergoing a lengthy maturation or food stored for an extended period is particularly high in histamine and other biogenic amines also degraded by DAO enzyme.

These foods are, among others:

- Raw or pasteurized milk and dairy products.
- Citrus fruits, strawberries and banana.
- Seafood, oily fish and fish sauces.
- Raw cured sausage such as spiced sausage, chorizo or bacon.
- Some vegetables such as tomatoes, spinach or aubergines.
- Alcoholic drinks\*, especially red and sparkling wine.

\* Alcoholic drinks contain, to some extent, histamine or other biogenic amines, and furthermore, alcohol inhibits DAO activity impeding histamine degradation and metabolism.

### How does DAOhead® work?

The Diamine Oxidase (DAO) contained in DAOhead® serves as a supplement to the enzyme found in the body, which oversees metabolizing histamine. Taking one capsule of DAOhead® before each meal increases the amount of DAO in the small bowel and therefore also boosts histamine degradation. This accelerates the processing of the histamine found in different foods in the digestive tract, which triggers the symptoms.

### How should DAOhead® be used?

Take 1 capsule with some water 20 minutes before the main meals (3 times a day). The capsule should be swallowed whole, if you are unable to swallow it whole, please open it and ingest the tablets from its interior separately, swallowing them whole without chewing, splitting or breaking them.

### What does DAOhead® contain?

Bulking agents: microcrystalline cellulose and hydroxypropylcellulose; caffeine anhydrous; potato starch; glacing agent: ethylcellulose and hydroxypropylmethylcellulose; pig kidney protein extract with 7% diamine oxidase (DAO); stabilizers: magnesium salts of fatty acids and sodium alginate; medium chain triglycerides; pyridoxine hydrochloride (vitamin

B6); rice Starch; colour: beetroot red; stabilizer: oleic acid; folic acid (vitamin B9); humectant: glycerin; stabilizer: stearic acid; colour: riboflavin; maltodextrin; stabilizer: trisodium citrate; cyanocobalamin (vitamin B12); acid: citric acid; vegetable capsule: hydroxypropylmethylcellulose.

Eficaps® capsules contain gastro-resistant tablets with controlled release DAO in the intestine that prevent stomach acid pH and tablets that guarantee the immediate release of adjuvant active ingredients.

Each capsule contains four tablets:

- 2 DAO white/beige gastro-resistant tablets with release into the intestine.
- 1 orange tablet for immediate release with vitamins of group B.
- 1 red tablet for immediate release with caffeine\*

(\* If you can not take caffeine, you can open the capsule and remove the red tablet.

### Important observations

DAOhead® does not a single food source. Alcohol and medicines may largely inhibit the action of the Diamine Oxidase enzyme (DAO). To be used only under the supervision of a qualified practitioner, who shall recommend the dosage according to the symptoms. Keep out of the reach of children. Store in a cool place. The capsules must be swallowed whole. It does not contain Histamine. Gluten free. Lactose free. Sugars free.

### Conservation

DAOhead® contains Diamine Oxidase (DAO), a thermolabile enzyme (sensitive to temperature), being advisable to keep it away from sources of heat. If consumed according to the dose recommended daily intake, does not require a special conservation, but if exceptionally consumes sporadically, being stored for long time, it is advisable to keep it in fridge.

### Which pack sizes is DAOhead® available in?

DAOhead® is available in packs containing 30 and 60 capsules.

Nutritional information	Per capsule	Per 100g
Energy value	8.21 kJ 1.94 kcal	1318 kJ 318 kcal
Fat		
of which: Saturates	0.007 g	1.1 g
Carbohydrate	0.4 g	65 g
of which: Sugars	0.003 g	<0.5 g
Protein	0.072 g	11.9 g
Salt	0.003 g	0.464 g
Pig kidney protein extract	4.2 mg	0.689 g
• With DiAmine Oxidase (DAO)	0.3 mg	0.049 g
Caffeine	30 mg	4.926 g
Vitamin B6	1.4 mg	230.26 mg
Vitamin B12	1 µg	164.47 µg
Folic Acid	400 µg	65789.47 µg
Sodium	1mg	186 mg

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