

## **ColoPlus *IMCARE* administered as a porridge.**

**Porridge** by definition is a dish prepared from grains or legumes cooked with water. It was a traditional food in much of Northern Europe and Russia. Barley was a common grain, though other grains and yellow peas could be used, depending on local conditions. It was primarily a savory dish, with meats, root crops, vegetables and herbs added for flavor. It could be cooked in a large metal kettle over hot coals or heated in a cheaper earthenware container by adding hot stones until boiling hot. Until leavened bread and baking ovens became commonplace in Europe, porridge was a typical means of preparing cereal crops for the table. In many modern cultures, it is widely eaten as a breakfast dish, often with the addition of salt, butter, sugar, milk or cream, depending on regional preferences.

Porridge as a food is easy to digest and is a gentle way to get nutrition. It can be eaten by all ages and in almost any state of health. It is used traditionally in many cultures to nurse the sick back to health and had already been linked to a reduced risk of major diseases. This is one of the easiest ways to digest grains or legumes.

Porridge is a combination of carbohydrates, dietary fibers, vitamins and minerals. This package of essential nutrients can help boost your immune system and fight infection. By introducing a bioactive component in the formula its boosting power is multiplied.

Recently, porridge has experienced a remarkable renaissance as an everyday basic food. Its valuable properties have become more and more obvious.

### **This leads to the Patented Innovation ColoPlus *IMCARE*:**

**ColoPlus<sup>®</sup> *IMCARE*** is a dry porridge powder. It is combined by two parts, a bioactive part and a vehicle. The bioactive part is a bovine colostrum, the vehicle is formed by organic particulate matter.

Bovine colostrum has several established medical effects due to a rich content of bioactive substances like immunoglobulins, growth factors, bioactive peptides and proteins. Even fats and carbohydrates of colostrum origin have been reported to have antibacterial effects.

Colostrum powder quality is of crucial importance for therapeutic effect of the product. Industrial processing of colostrum for ColoPlus purposes is carried out carefully to prevent its balanced system distortion and bioactive peptides and proteins denaturation. The quality is decided by IgG content which is an established marker for liquid colostrum quality, with growth factors being correlated to Ig.

In formulation of the product a principle of “entire colostrum system” is used. Without further fractionation the components of colostrum, such as carbohydrates, proteins and salts, can protect more sensitive components of colostrum from inactivation during the conventional processing in the dairy industry.

The vehicle is comprised by organic particulate matter which when swells in water forms porridge. The size (0.3-7 mm) and amount (40-80 wt.% on dry weight basis) of the particulate matter is **selected to slow down and control the time required to empty stomach thus prolonging transit**

**time of the bioactivities through the digestive tract and extending the exposure time of the bioactivities to the mucosal surface of the GI and local immunological response. Survival and resistance of the bioactive part in the GI tract also increases.**

*Prolonged effect.* During clinical studies a prolonged effect of ColoPlus *IMCARE* was observed for at least 4 weeks after last intake, as diarrheas stopped, CD4 count increased, weight gain stayed etc. This prolonged effect makes ColoPlus *IMCARE* cost efficient.

Colostrum has been shown to be effective against a range of bacterial, viral and protozoal pathogens and against various bacterial toxins.

*Mechanism of action.* **Immunoglobulins from colostrum are not absorbed by the body when administrated orally but remain in the digestive tract giving local effect. There they attack food- and water-borne organisms that cause disease. ColoPlus® *IMCARE* is effective in preventing intestinal infections by first keeping the bacteria from attaching themselves to the intestinal wall, and secondly by destroying the bacteria themselves. No side effects have been reported.**

#### **In short: why ColoPlus *IMCARE* as a porridge?**

- Protecting bioactivities during administration and GI passage from destroying by low pH and enzymes
- Prolonging transit time and thus, increasing exposure time of bioactivities with mucosa
- Providing macronutrients like carbohydrates
- Gentle way to get nutrition and fibres
- Suitable for almost all states of health
- Suitable for all ages
- Suitable for all religions
- Easy to prepare
- Easy to store (dry powder)
- Optimal method to administer valuable colostrum for human health

#### **In short: colostrum effects**

- IgG act like IgA on mucosa of GI tract giving local effect: attacking food- and water-borne organisms that cause diseases, preventing the bacteria from attaching themselves to intestinal wall, and secondly by destroying bacteria themselves
- Systemic effect is obtained due to presence of growth factors, bioactive peptides and micronutrients. Proven immune support.
- High nutritional value

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