WHAT IS CLAIMED IS:

1. A nutritional composition comprising a galactooligosaccharide for use in enhancing healing of the gastrointestinal tract of an individual.

2. The nutritional composition of claim 1 wherein the gastrointestinal tract is injured as a result of at least one of antibiotic therapy, radiation therapy, chemotherapy, surgery, enteric infection, inflammatory bowel disease, colitis, bowel obstruction, and chronic stress.

3. The nutritional composition of claim 1 wherein the nutritional composition further comprises at least one probiotic.

4. The nutritional composition of claim 1 wherein the nutritional composition is selected from the group consisting of a human milk fortifier, an infant formula, a pediatric formula, a follow on formula, and an adult nutritional composition.

5. The nutritional composition of claim 4 wherein the nutritional composition comprises the galactooligosaccharide in a concentration of from about 8 kg/1000 kg of the nutritional composition to about 160 kg/1000 kg of the nutritional composition.

6. The nutritional composition of claim 1 wherein the nutritional composition comprises the galactooligosaccharide in a concentration of from about 164 kg/18,000 pounds (8165 kg) of the nutritional composition to about 818 kg/18,000 pounds (8165 kg) of the nutritional composition.

7. The nutritional composition of claim 1 wherein the nutritional composition further comprises at least one human milk oligosaccharide.

8. A nutritional composition comprising a galactooligosaccharide for use in reducing the incidence of intestinal mucosa injury.

9. The nutritional composition of claim 8 wherein the nutritional composition further comprises at least one probiotic.

10. The nutritional composition of claim 8 wherein the nutritional composition is selected from the group consisting of a human milk fortifier, an infant formula, a pediatric formula, a follow on formula, and an adult nutritional composition.

11. The nutritional composition of claim 10 wherein the nutritional composition comprises the galactooligosaccharide in a concentration of from about 8 kg/1000 kg of the nutritional composition to about 160 kg/1000 kg of the nutritional composition.

12. The nutritional composition of claim 8 wherein the nutritional composition comprises the galactooligosaccharide in a concentration of from about 164 kg/18,000 pounds (8165 kg) of the nutritional composition to about 818 kg/18,000 pounds (8165 kg) of the nutritional composition.

13. A nutritional composition comprising a galactooligosaccharide for use in improving the barrier function in the gastrointestinal tract of an individual.

14. The nutritional composition of claim 13 wherein the nutritional composition further comprises at least one probiotic.

15. A nutritional composition comprising a galactooligosaccharide for use in reducing the incidence of inflammation of the gastrointestinal tract of an individual.

WHAT IS CLAIMED IS:

1. A method of enhancing healing of the gastrointestinal tract of an individual, the method comprising:

identifying an individual having an injured gastrointestinal tract; and

administering to the individual a nutritional composition comprising a galacto-oligosaccharide.

2. The method of claim 1 wherein the gastrointestinal tract is injured as the result of at least one of antibiotic therapy, radiation therapy, chemotherapy, surgery, enteric infection, inflammatory bowel disease, colitis, bowel obstruction, and chronic stress.

3. The method of claim 1 wherein the nutritional composition further comprises at least one probiotic.

4. The method of claim 1 wherein the nutritional composition is selected from the group consisting of a human milk fortifier, an infant formula, a pediatric formula, a follow on formula, and an adult nutritional composition.

5. The method of claim 4 wherein the nutritional composition comprises galactooligosaccharide in a concentration of from about 8 kg/1000 kg nutritional composition to about 160 kg/1000 kg nutritional composition.

6. The method of claim 1 wherein the nutritional composition comprises galactooligosaccharide in a concentration of from about 164 kg/18,000 pounds nutritional composition to about 818 kg/18,000 pounds nutritional composition.

7. The method of claim 1 wherein the nutritional composition further comprises at least one human milk oligosaccharide.

8. A method of reducing the incidence of intestinal mucosa injury, the method comprising:

identifying an individual susceptible to an intestinal mucosa injury; and

administering to the individual a nutritional composition comprising a galacto-oligosaccharide.

9. The method of claim 8 wherein the nutritional composition further comprises at least one probiotic.

10. The method of claim 8 wherein the nutritional composition is selected from the group consisting of a human milk fortifier, an infant formula, a pediatric formula, a follow on formula, and an adult nutritional composition.

11. The method of claim 10 wherein the nutritional composition comprises galactooligosaccharide in a concentration of from about 8 kg/1000 kg nutritional composition to about 160 kg/1000 kg nutritional composition.

12. The method of claim 8 wherein the nutritional composition comprises galactooligosaccharide in a concentration of from about 164 kg/18,000 pounds nutritional composition to about 818 kg/18,000 pounds nutritional composition.

13. A method of improving the barrier function in the gastrointestinal tract of an individual; the method comprising:

identifying an individual in need of an increased barrier function of the gastrointestinal tract; and

administering to the individual a nutritional composition comprising a galacto-oligosaccharide.

14. The method of claim 13 wherein the nutritional composition further comprises at least one probiotic.

15. A method of reducing the incidence of inflammation of the gastrointestinal tract of an individual, the method comprising:

identifying an individual susceptible to inflammation of the gastrointestinal tract; and

administering to the individual a nutritional composition comprising a galacto-oligosaccharide.