WHAT IS CLAIMED IS:

1. Use of a nutritional composition comprising a carbohydrate system in the manufacture of a medicament for preventing fat accumulation in a woman during gestation, the carbohydrate system comprising from 40% to 80% by weight of a carbohydrate selected from the group consisting of isomaltulose, sucromalt, and combinations thereof, from 1% to 15% by weight of a complex carbohydrate, from 5% to 25% by weight of a nonabsorbent carbohydrate, and from 1% to 20% by weight of an indigestible oligosaccharide.

2. The use of claim 1 wherein the medicament is to be administered to a non-pregnant woman prior to pregnancy.

3. The use of either claim 1 or claim 2, wherein said woman is of normal weight.

4. The use of any preceding claim, wherein said woman has a condition selected from the group consisting of overweight, obesity, diabetes, gestational diabetes, and combinations thereof.

5. The use of any preceding claim, wherein the complex carbohydrate is selected from the group consisting of a maltodextrin, corn starch, rice starch, wheat starch, and combinations thereof.

6. The use of any preceding claim, wherein the complex carbohydrate comprises maltodextrin having a Dextrose Equivalent of from 3 to 25.

7. The use of any preceding claim, wherein the complex carbohydrate comprises maltodextrin having a Dextrose Equivalent of from 9 to 16.

8. The use of any preceding claim, wherein the nonabsorbent carbohydrate is selected from the group consisting of inulin, dietary insoluble fibers, digestion resistant maltodextrins, and combinations thereof.

9. The use of any preceding claim, wherein the indigestible oligosaccharide is selected from the group consisting of fructooligosaccharides, galactooligosaccharides, trans-galactooligosaccharides, xylooligosaccharides, and combinations thereof.

10. The use of any preceding claim, wherein the medicament is to be administered to the woman daily for at least the last three months of the pregnancy.

11. The use of any preceding claim, wherein the woman consumes from 20 to 175 grams of the carbohydrate system per day.

12. The use of any preceding claim, wherein the woman consumes from 90 to 125 grams of the carbohydrate system per day.

13. The use of any preceding claim, wherein the carbohydrate system comprises from 60% to 70% by weight of a carbohydrate selected from the group consisting of isomaltulose, sucromalt, and combinations thereof, from 6% to 10% by weight complex carbohydrate, from 5% to 20% by weight nonabsorbent carbohydrate, and from 2% to 15% by weight indigestible carbohydrate.

WHAT IS CLAIMED IS:

1. A method of preventing fat accumulation in a woman during gestation, the method comprising administering to said pregnant woman a nutritional composition comprising a carbohydrate system, said carbohydrate system comprising a slow rate of digestion simple carbohydrate, a complex carbohydrate, a nonabsorbent carbohydrate, and an indigestible oligosaccharide.

2. The method of claim 1 further comprising administering said nutritional composition to a non-pregnant woman prior to pregnancy.

3. The method of either claim 1 or claim 2 wherein said woman is of normal weight.

4. The method of any preceding claim, wherein said woman has a condition selected from the group consisting of overweight, obesity, diabetes, gestational diabetes, or combinations thereof.

5. The method of any preceding claim, wherein the slow rate of digestion simple carbohydrate is selected from the group consisting of isomaltulose, sucromalt, and combinations thereof.

6. The method of any preceding claim, wherein the complex carbohydrate is selected from the group consisting of a maltodextrin, corn starch, rice starch, wheat starch, and combinations thereof.

7. The method of any preceding claim, wherein the complex carbohydrate comprises maltodextrin having a Dextrose Equivalent of from 3 to 25.

8. The method of any preceding claim, wherein the complex carbohydrate comprises maltodextrin having a Dextrose Equivalent of from 9 to 16.

9. The method of any preceding claim wherein the nonabsorbent carbohydrate is selected from the group consisting of inulin, insoluble dietary fibers, digestion resistant maltodextrins, and combinations thereof.

10. The method of any preceding claim wherein the indigestible oligosaccharide is selected from the group consisting of fructooligosaccharides, galactooligosaccharides, trans-galactooligosaccharides, xylooligosaccharides, and combinations thereof.

11. The method of any preceding claim wherein the nutritional composition is administered daily for at least the last three months of the pregnancy, preferably at least the last six months of the pregnancy.

12. The method of any preceding claim wherein the woman consumes from 20 to 175 grams of the carbohydrate system per day.

13. The method of any preceding claim wherein the woman consumes from 90 to 125 grams of the carbohydrate system per day.

14. The method of any preceding claim wherein the carbohydrate system comprises from 40% to 80% by weight slow rate of digestion simple carbohydrate, from 1% to 15% by weight complex carbohydrate, from about 5% to about 25% by weight nonabsorbent carbohydrate, and from 1% to 20% by weight indigestible carbohydrate.

15. The method of any preceding claim wherein the carbohydrate system comprises from 60% to 70% by weight slow rate of digestion simple carbohydrate, from 6% to 10% by weight complex carbohydrate, from 5% to 20% by weight nonabsorbent carbohydrate, and from 2% to 15% by weight indigestible carbohydrate.