

9. A method for preventing adhesions between soft internal body tissues which comprises the steps of:  
 dissolving a member selected from the group consisting of chitosan; N, carboxyl methyl-chitosan; N,O carboxyl methyl-chitosan; O, carboxyl methyl-chitosan and combinations thereof, in a dilute acidic aqueous solution;  
 drying the solution so as to form a film;  
 cross-linking the film by wetting it with an aqueous acidic solution having an anion capable of ionically cross-linking with amino groups of said dissolved member;  
 forming a visco-elastic fluid by dissolving the film in an aqueous solution; and  
 placing the visco-elastic fluid between soft internal body tissues to prevent adhesions.

10. The method as set forth in claim 9 wherein a sulphate anion of sulfuric acid ionically cross-links with said amino group.

11. The method as set forth in claim 10 wherein the concentration of sulfuric acid is less than 0.5 molar.

12. The method as set forth in claim 9 wherein the anion is provided by a member selected from the group consisting of aspartic acid, glutamic acid, corresponding salts of these acids or combinations thereof.

13. The method as set forth in claim 12 wherein the aqueous solution is saturated with the anion providing acidic solution.

14. The method as set forth in claim 9 wherein the cross-linking is performed using an aqueous solution having a concentration of cross-linking agent such that cross-linking occurs prior to the film dissolving under the action of the wetting solution.

15. A method for preventing adhesions between soft internal body tissues which comprises the steps of:  
 dissolving a member selected from the group consisting of chitosan; carboxyl methyl-chitosan; N, carboxyl methyl-chitosan; N,O carboxyl methyl-chitosan; O, carboxyl methyl-chitosan and combinations thereof in an aqueous solution;  
 drying the solution so as to form a film;  
 forming a closed film surrounding a visco-elastic fluid by placing the film in an ionic cross-linking bath saturated with an amino acid negatively charged at a pH of 6; and  
 placing the film enclosing the visco-elastic fluid between the tissues to prevent adhesion.

16. The method as set forth in claim 15 wherein the amino acids are selected from the group consisting of aspartic acid, glutamic acids, corresponding salts of these acids, or combinations thereof.

17. A method for preventing adhesions between soft internal body tissues which comprises the steps of:  
 dissolving biodegradable carboxy containing derivatives of chitin in a dilute acidic aqueous solution;  
 drying the solution so as to form a film;  
 cross-linking the film by wetting it with an acidic aqueous solution having an anion capable of ionically

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ally cross-linking with amino groups of said derivatives of chitin;  
 forming a visco-elastic fluid by dissolving the cross-linked film in an aqueous solution; and  
 placing the visco-elastic fluid between soft internal body tissues to prevent adhesions.

18. The method as set forth in claim 17 wherein the sulphate anion of sulfuric acid ionically cross-links with said amino groups.

19. The method as set forth in claim 18 wherein the concentration of sulfuric acid is less than 0.5 molar.

20. The method as set forth in claim 17 wherein said anion is provided by an amino acid selected from the group consisting of aspartic acid, glutamic acid, corresponding salts of these acids or combinations thereof.

21. The method as set forth in claim 20 wherein the aqueous solution is saturated with the cross-linking agent.

22. The method as set forth in claim 17 wherein the cross-linking is performed using an aqueous solution having a concentration of cross-linking agent such that cross-linking occurs prior to the film dissolving under the action of the wetting solution.

23. A method for preventing adhesions between soft internal body tissues which consists essentially of:  
 dissolving biodegradable carboxy containing derivatives of chitin in a dilute acidic aqueous solution;  
 drying the solution so as to form a film;  
 cross-linking the film by wetting it with an acidic aqueous solution having an anion capable of ionically cross-linking with amino groups of said derivatives of chitin;  
 forming a visco-elastic fluid by dissolving the cross-linked film in an aqueous solution;  
 placing the visco-elastic fluid between soft internal body tissues to prevent adhesions; and  
 mixing an anti-thrombogenic substance with the film after cross-linking the film.

24. A method of preventing adhesions between soft internal body tissues consisting essentially of the steps of placing a material between the tissues, said material consisting essentially of biodegradable carboxy containing derivatives of chitin which are soluble in dilute acidic aqueous solutions; and  
 said material being formed into a gel by ionic cross-linking prior to placing the material between the tissue by dissolving a maximum of 4% by weight of the derivative of chitin in an aqueous acidic solution.

25. A method of preventing adhesions between soft internal body tissues consisting essentially of the step of placing a material between the tissues, said material consisting essentially of ionically cross-linked carboxy containing biodegradable derivatives of chitin which are soluble in dilute acidic aqueous solutions and wherein said material is mixed with an anti-thrombogenic agent with the soluble biodegradable derivative of chitin prior to placing the material between the tissues.

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