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Sommario/riassunto

Collagen is the main fibrous structural protein in the extracellular matrix and connective tissue of animals. It is a primary building block of bones, tendons, skin, hair, cartilage, and all joints in the body. It is also considered a "glue" that holds the body together. Collagen production begins to slow down, and cell structures start losing their strength as we become older. Collagen supplementation is a vital way to help our body revive itself and stay youthful. Recently, collagen-based biomedical materials have developed important and clinically effective materials that have become widely acceptable. However, collagen extraction from land animal sources is complex, time consuming, and expensive. Hence, marine sources have started to be researched and have been found to be the most convenient and safest sources for obtaining collagen. Another reason for favouring these sources is due to concerns over adverse inflammatory and immunologic responses and the prevalence of various diseases among land animals that can cause health complications.Marine sources also have plenty of advantages over land animal sources: (1) a high collagen content; (2) environmentally friendly; (3) the presence of biological contaminants and toxins is almost negligible; (4) a low inflammatory response; (5) greater absorption due to their low molecular weight; (6) less significant religious and ethical constraints; (7) minor regulatory and quality control problems; (8) metabolic compatibility, among others. This huge source of marine collagen is expected to make a great

contribution to marine biotechnology products and medical applications.