# CYTOKINES AND THEIR ROLE IN DESTRUCTIVE PERIODONTAL DISEASE - A REVIEW




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Biological events are strictly regulated by cell to cell interactions, which are categorized into: cognate (adhesive) interactions, achieved by mutual recognition between membrane-bound cell-surface molecules; and cytokine-mediated interactions.[68]

Cytokines are small soluble proteins produced by a cell that alter the behaviour or properties of another cell locally or systemically. Included in the cytokine molecule group are interleukins, interferons, growth factors, cytotoxic factors, activating or inhibiting factors, colony-stimulating factors and intercrines. These are responsible for the maintenance of an intricate communication network between homotypic and heterotypic cell types. Thus the cytokines play an important role in numerous biological activities including proliferation, development, differentiation, homeostasis, regeneration, repair and inflammation.[68]

As a rule, the synthesis of cytokine is inducible, though some factors are known to be produced constitutively. Activated cells usually synthesize many different cytokines at the same time. Most of these cells express specific receptors which can react to a wide spectrum of cytokines. Many cytokines were originally classified based on their cellular origin or their functions. However, it is now known that cytokines are usually multifunctional and are produced by many cell types and that their biological activities clearly overlap.[37]