C-reactive protein (CRP) is measured on a Behring Nephelometer with latex-enhanced nephelometry. Latex-enhanced assays are based on the reaction between an analyte present in human body fluids and the corresponding antigen or antibody bound to polystyrene particles. For the quantification of CRP, particles consisting of a polystyrene core and a hydrophilic shell are used in order to link anti-CRP antibodies covalently.

A dilute solution of test sample is mixed with latex particles coated with rabbit anti-CRP antibodies. CRP present in the test sample will form an antigen-antibody complex with the latex particles. An accelerator reagent containing detergent is added to the reaction mixture to enhance complex binding. This accelerator reagent has had rabbit serum added prior to use to prevent or to minimize falsely elevated CRP caused by potential anti-rabbit antibody in the specimens.

Light scattering, measured by a nephelometric procedure after 6 min, is proportional to the concentration of the analyte present in the sample. An automatic blank subtraction is performed. CRP concentrations are calculated by using a calibration curve. Data reduction of the signals is performed by using a storable logit-log function for the calibration curve.

-from *Laboratory Procedures Used for the Third National Health and Nutrition Examination Survey (NHANES III) 1988-1994*
Elaine W. Gunter, Brenda G. Lewis, and Sharon M. Koncikowski, 1996