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[Blood Coagul Fibrinolysis.](http://www.ncbi.nlm.nih.gov/pubmed/23135380) 2012 Dec;23(8):745-50. doi: 10.1097/MBC.0b013e328358e913.

**Coagulation factors and antithrombin levels in young and elderly subjects in Pakistani population.**

[Amin H](http://www.ncbi.nlm.nih.gov/pubmed?term=Amin%20H%5BAuthor%5D&cauthor=true&cauthor_uid=23135380), [Mohsin S](http://www.ncbi.nlm.nih.gov/pubmed?term=Mohsin%20S%5BAuthor%5D&cauthor=true&cauthor_uid=23135380), [Aslam M](http://www.ncbi.nlm.nih.gov/pubmed?term=Aslam%20M%5BAuthor%5D&cauthor=true&cauthor_uid=23135380), [Hussain S](http://www.ncbi.nlm.nih.gov/pubmed?term=Hussain%20S%5BAuthor%5D&cauthor=true&cauthor_uid=23135380), [Saeed T](http://www.ncbi.nlm.nih.gov/pubmed?term=Saeed%20T%5BAuthor%5D&cauthor=true&cauthor_uid=23135380), [Ullah MI](http://www.ncbi.nlm.nih.gov/pubmed?term=Ullah%20MI%5BAuthor%5D&cauthor=true&cauthor_uid=23135380), [Sami W](http://www.ncbi.nlm.nih.gov/pubmed?term=Sami%20W%5BAuthor%5D&cauthor=true&cauthor_uid=23135380).

**Source**

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**Abstract**

Aging is associated with increased levels of coagulation factors and decrease in natural anticoagulant factors. This strongly supports that age-related hypercoagulable state occurs in elderly. This study aimed to measure the plasma levels of coagulation factors and anticoagulant levels in young and elderly to observe the effect of age on haemostatic system. Ninety healthy individuals, both men and women were divided into two groups on the basis of age. Group I included participants of less than 40 years of age, whereas, group II comprised of participants more than 60 years of age. Fibrinogen activity was assessed by using Clauss technique. Coagulation factor VII, and factor VIII activity by corresponding one stage assay based on prothrombin time and activated partial thromboplastin time. Antithrombin III was measured by the chromogenic method. Our results showed that significantly increased levels of fibrinogen (P = 0.001) were observed in the elderly population as compared to young. Higher fibrinogen levels in younger women than men and comparatively higher level than other races was observed in our local population. Increase in factor VII levels (P = 0.05) was also observed in the elderly group. This increase was statistically significant with age in women (P = 0.03). Factor VIII rose with age in both sexes (P = 0.001). Higher antithrombin activity was observed in the younger group whereas the older group demonstrated significantly lower antithrombin activity (P = 0.001). We conclude that considerable effects of age and sex are observed on coagulation factors and naturally occurring inhibitors.

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