

5 signs of bleeding



Easy bruising with indurations



Frequent or prolonged nosebleeds



Heavy menstrual periods



Prolonged bleeding after injury, childbirth and surgery



Prolonged bleeding/mucous membrane bleeding during dental work

« These signs may indicate a coagulation disorder. To investigate further, please turn the page and use the questionnaire.

www.signsofbleeding.com

Brochures on coagulation disorders are also available for other major medical disciplines

Relevant links to more information on von Willebrand disease and other coagulation disorders

www.wfh.org
www.ehaweb.org
www.esh.org
www.hematology.org
www.allaboutbleeding.com

www.nhlbi.nih.gov
www.ehc.eu
www.hemophilia.ca
www.intreavws.com

Address of local haemophilia center:

We would like to thank the international faculty for essential support:

Dr. Andra James (MD)

Debra Pollard (RN)

Dr. Pieter Kamphuisen (MD)

Dr. Kai Leimbach (odont.)

Dr. Johannes Rischewski (MD)

Alexandra Eichert-Naumann

Dr. Elvira Grandone (MD)

Dr. Hubert K. Hartl (MD)[†]

Literature

^[1] Plug I, et al. Bleeding in carriers of hemophilia. *Blood* 2006; 108: 52–56

^[2] Roosendaal G, et al. Prophylactic treatment for prevention of joint disease in hemophilia – cost versus benefit. *N Engl J Med* 2007; 357: 603–605

^[3] Srámek A, et al. Usefulness of patient interview in bleeding disorders. *Arch Intern Med* 1995; 155: 1409–1415

^[4] Makris M, et al. Immunization of patients with bleeding disorders. *Haemophilia* 2003; 9: 541–546

^[5] Ljung R. The risk associated with indwelling catheters in children with haemophilia. *Br J Haematol* 2007; 138: 580–586

^[6] Liesner R, et al. Non-accidental injury and the haematologist: the causes and investigation of easy bruising. *Blood Coagul Fibrinolysis* 2004; 15 (Suppl 1): S41–S48



5 signs of bleeding

information about coagulation disorders

pediatricians

Identifying a coagulation disorder during childhood

- Approximately 1% of the general population have a mutation in the von Willebrand factor gene
- Female carriers of haemophilia A & B have an increased risk of bleeding after trauma and medical interventions^[1]
- Avoiding joint bleeds in children is important because it may prevent long-term joint disease^[2]
- A simple interview is useful as a screening tool^[3]

It would be prudent to spend 5 minutes on '5 signs' in any of the following situations – these could all indicate a coagulation disorder

- Frequent or prolonged nosebleeds (epistaxis)
- Prolonged bleeding after circumcision
- Toddlers with bruised knees
- Extensive shoulder bruising from schoolbags
- Large haematomas from trivial injuries

When discussing bruising, ask the patient about other symptoms of potential coagulation disorders. It only takes 5 minutes – better safe than sorry!

5 minutes

5 signs

to be safer

Coagulation disorders and the pediatrician

In children with unrecognised coagulation disorders

- Routine childhood injections may cause haematomas or bruising^[4]
- Minor surgical procedures accompanied by prolonged bleeding are distressing for the patient and family, and healing may be delayed

Children are often getting bumps, cuts and bruises. In those with unrecognised coagulation disorders, trivial injuries could lead to

- Doctors and parents mistaking heavy bruising after minor knocks for non-accidental injury or bullying, respectively^[5]
- Excessive bruising and/or haematomas when children start contact sports, athletics, gymnastics, etc

If you suspect a coagulation disorder, please determine the patient's 'bleeding history'

» Bleeding history

For further investigation, please ask these questions:

Medication and treatment

- Is your child currently taking, or has it recently received
- Antithrombotic medication: aspirin, heparin, clopidogrel, ticlopidine, vitamin-K antagonists (e.g. Marcumar, Warfarin)?
 - Non steroidal anti inflammatory drugs: diclofenac, ibuprofen?
 - Antibiotic medication: penicillin, tetracycline, sulfonamides, fluoroquinolones (e.g. Ciprofloxacin)?
 - Other drugs interacting with the coagulation system: valproic acid, megadoses of vitamin E?
- Has your child ever had anaemia that required treatment, or has it received a blood transfusion?

Coagulation

- Has your child ever had a spontaneous nosebleed that either persisted for 10 mins or required medical attention?
- Has your child ever experienced prolonged bleeding (duration of 15 mins, or spontaneous recurrence within 7 days) from minor wounds?
- Has your child ever experienced heavy, prolonged or recurrent bleeding following a surgical procedure?

Family History

- Can you recall any coagulation disorders among family members (these must be blood relatives)?
- Do any members of your family (blood relatives) regularly experience any of the '5 signs of bleeding'?

If an answer concerning coagulation or family history is positive, consider referring the patient to a haematologist