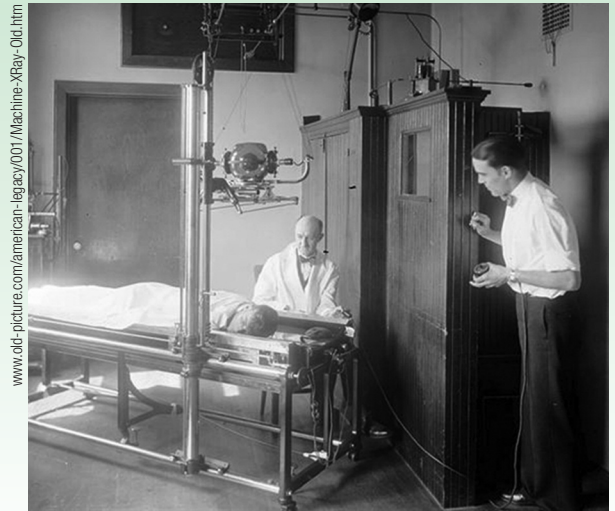




# References used in Looking Back on X-Rays and Hemophilic Arthropathy

## Richard's Review, PEN, May 2011



www.old-picture.com/american-legacy/001/Machine-XRay-Old.htm

The fatal consequences of aspirating a hemophilic joint were documented by Franz Konig of Gottingen, Germany, in 1892. His German article was published in English, in an extremely condensed version, later in 1892. The first English translation of the entire 1892 article was published in 1967. Of the eight patients with hemophilia seen by Konig, two patients had joint aspirations and both died. Konig is best known for devising three stages of hemophilic joint disease, and for providing one of the best descriptions of hemophilic arthropathy.

Konig F. (1892). Die Gelenkerkrankungen bei Blutern mit besonderer Berücksichtigung der Diagnose. *Klin Vortage*, 36, 233.

Konig F. (1892). Diseases of joints in haemophiliacs (Summary by Samuel Lloyd). *Annals of Surgery*, 16, 287-288.

Konig F. (1967). Diseases of the joints in bleeders, especially with regard to the diagnosis. *Clinical Orthopaedics*, 52, 5-11.

In 1889, Mr. Frederick S. Eve and Mr. Leonard A. Bidwell, at the Evelina Hospital for Children, claimed that the best collection of pathological examples of hemophilic joints was in the museum at St. Bartholomew's Hospital, London.

Eve, F. S., & Bidwell, L. A. (1889). Cases from the surgical out-patients, with remarks. *Lancet*, ii, 1002-1003.

Dr. James Hughes of Simpsonville, Kentucky, wrote a short, concise summary of hemophilia that was published in an obscure medical journal in Kentucky in 1832.

Hughes, J. (1832). A case of hereditary haemorrhagic tendency. *Transylvania Journal of Medicine and Associate Sciences*, 5, 133.

Hughes, J. (1833). A case of hereditary haemorrhagic tendency. *American Journal of the Medical Sciences*, 11, 542-543.

Cone, T. E. (1979). A case of hereditary hemorrhagic tendency (hemophilia) reported in 1832 by a physician practicing in Simpsonville, Kentucky. *Pediatrics*, 64, 291.

In 1838, French physician E. Dubois, despite not having proof, proposed a theory of bleeding into hemophilic joints that proved to be quite accurate.

Dubois, E. (1838). Observation remarquable d'hémorrhaphilie (disposition hereditaire aux hemorrhagies). *Gazette Medical de Paris*, 2, 43.

In 1897, English physician J. E. Shaw published his findings on x-ray examination of hemophilic joints in an obscure medical journal in Bristol, England.

Shaw, J. E. (1897). A case of haemophilia with joint-lesions. *Bristol Medico-Chirurgical Journal*, 15, 240-245.

In 1981, the benefits of prophylaxis were demonstrated with radiologic evaluation by H. Pettersson, I. M. Nilsson, U. Hedner, K. Norehn, and A. Ahlberg of Malmo, Sweden. Dr. Pettersson is well known for his radiologic classification of hemophilic arthropathy.

Pettersson, H., Nilsson, I. M., Hedner, U., Norehn, K., & Ahlberg, A. (1981). Radiologic evaluation of prophylaxis in severe haemophilia. *Acta Paediatrica Scandinavica*, 70, 565-570.

Once the theories were introduced that x-rays stimulated blood cell production and promoted blood clotting (as cited by Hurwitz and Lucas in 1916), several experimental trials were conducted. These included therapeutic x-rays of the long bones by S. H. Hurwitz, MD, and W. P. Lucas, MD, of San Francisco, California, in 1916; therapeutic x-rays of the pituitary gland by William B. Chew, MD, Richard P. Stetson, MD, George van S. Smith, MD, and O. Watkins Smith, MD, of Boston, Massachusetts, in 1935; and therapeutic x-rays of the spleen by Marcus Ostro, MD, and David I. Macht, MD, of Baltimore, Maryland, in 1946. Summaries of radiotherapy for hemophilic pseudotumors were provided by Ki-Bum Sim, MD, and Seung-Kuan Hong, MD, of Seoul, Korea, in 1996, and also by Elizabeth Gaary, MD, Jed B. Gorlin, MD, and Diego Jaramillo, MD, of Boston, Massachusetts, in 1996.

Chew, W. B., Stetson, R. P., Smith G. S., and Smith, O. W. (1935). Estrogenic, luteal and gonadotropic hormones in hemophilia. *Archives of Internal Medicine* 55, 430-444.

Gaary, E., Gorlin, J. B., & Jaramillo, D. (1996). Pseudotumor and arthropathy in the knees of a hemophiliac. *Skeletal Radiology* 25, 85-87.

Hurwitz, S. H. & Lucas, W. P. (1916). A study of blood in hemophilia. *Archives of Internal Medicine*, 17, 543-569.

Ostro, M. & Macht, D. I. (1946). A pharmacological and radiological study of hemophilia. *Southern Medical Journal*, 39, 860-867.

Sim, K. & Hong, S. (1996). Cranial hemophilic pseudotumor: case report. *Neurosurgery* 39, 1239-1242.

