

# EFSUMB History of Ultrasound

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## The history of ultrasound in Denmark

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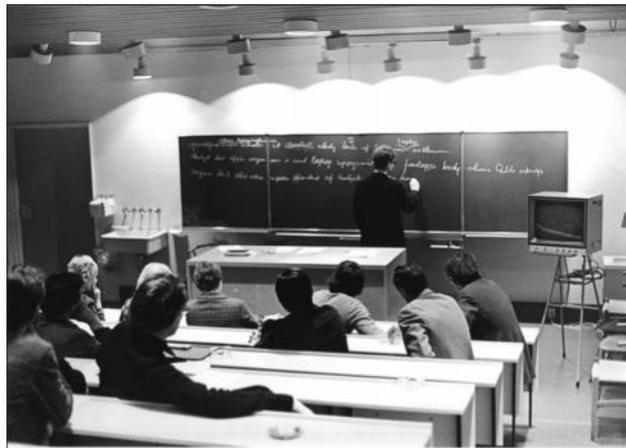
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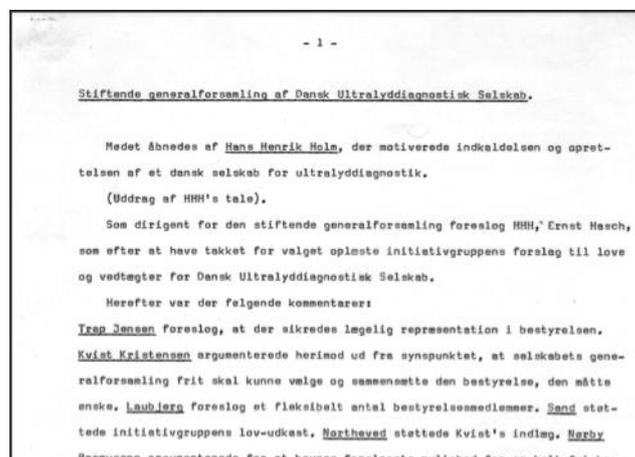
On the first of February 1974, a group of 42 ultrasound enthusiasts met at Gentofte Hospital north of Copenhagen. The meeting was the founding meeting of the Danish medical Ultrasound Society, and the group had convened to discuss the name and terms of the soon-to-be foremost society for ultrasound in Denmark. Different names were discussed, and the more conventionally concordant "Danish Society for Ultrasound in Medicine and Biology" was rejected with one vote in favor of the "Danish Society for Diagnostic Ultrasound", and so, DSDU was born (Figure 1).

**Figure 1** The founding meeting of DSDU at Gentofte Hospital along with an excerpt of the minutes summary [1].

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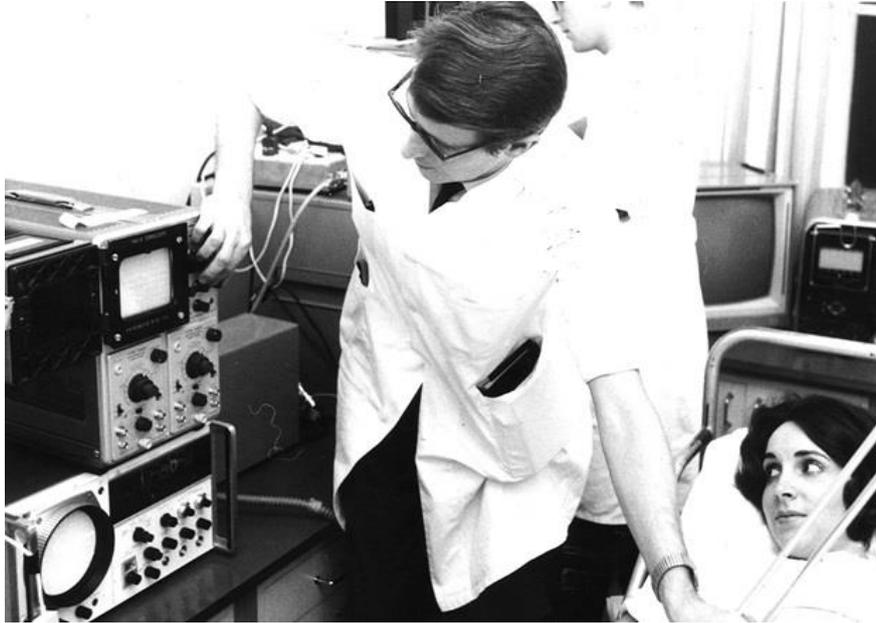
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It was no coincidence that the meeting was held at Gentofte Hospital. In the early 1960s, a young urologist at Gentofte Hospital by the name of Hans Henrik Holm had, along with a group of young colleagues, established a medical ultrasound laboratory here, and had convinced the administration to buy a Physionics A-mode scanner for the department [2]. The group soon realized the diagnostic potential of B-mode scanners, but no B-mode scanners were commercially available at the time, and so, they had no choice but to build it themselves. A local Danish institute specializing in ultrasound analysis of the quality of metal welds had, in 1961, partnered up with meat manufacturers to try to measure meat and fat composition of farm animals [3]. Hans Henrik Holm heard about this, and quickly recognized some of the potential human uses of the technology. He contacted the engineering institute, and in 1967, the Gentofte group along with an engineer from the institute, constructed their own static B-mode scanner.

Although the Gentofte group was the unofficial national scientific hotspot for clinical ultrasound in Denmark in the 60s and 70s, after the formation of EFSUMB in 1972 and the formation of WFUMB in 1973, Denmark was in need of a unifying, national organization. DSDU was (and still is) open to not only doctors, but anyone interested in medical ultrasound diagnostics [1]. DSDU prides itself on being an important meeting point for many different medical disciplines seeking to use ultrasound in diagnostics and treatment. An important goal of DSDU is to secure international collaboration and education, and DSDU has been an active member of both WFUMB and EFSUMB since its foundation.

**Figure 2 Hans Henrik Holm using ultrasound equipment developed in collaboration with The Danish Welding Institute (FORCE Technology) [3].**



Among the founding members of DSDU, no less than two members have since been named honorary members of EFSUMB. In 1996, the first vice president of DSDU, Jens Bang was named the first-ever honorary member of EFSUMB. Bang was an associate professor of gynecology at Copenhagen University Hospital, and, among many other ultrasound-related academic achievements, was the first to demonstrate fetal heart action using ultrasound along with Hans Henrik Holm [4]. Bang is also well known for his work on ultrasound safety, paving the way for, among other things, the widespread use of antenatal ultrasound that we see today. [5]

The second honorary member of EFSUMB was none other than the founding president of DSDU, Professor Hans Henrik Holm. Sadly, Holm passed away in 2016, but he has left an undeniable impression on the modern use of diagnostic ultrasound. He was known for his technical ingenuity, and Holm presented the first experimental model of a grey-scale scanner to the world at WFUMB's first conference in 1969 in Vienna. He was one of the pioneers of dynamic ultrasound imaging, and has been called "the father of interventional ultrasound", leading the way in the early days of ultrasound guided drainage, biopsy, tumor ablation and radioactive seed implantation. [6]

Today, DSDU plays an important role in facilitating researchers and clinicians in both academic and clinical advancements. DSDU hosts a variety of ultrasound courses in a great range of medical and surgical specialties, ranging from students and young doctors to specialists and specialists in training. DSDU frequently gives out grants for both pre- and postgraduate doctors for participation in international ultrasound conferences. Last, but not least, DSDU has had the honor of hosting multiple international ultrasound conferences. DSDU has hosted EUROSON in Copenhagen twice, most recently in 2010 [7], and has hosted one of the most successful ultrasound world congresses, WFUMB 1991, which brought more than 2000 attendees from all over the globe to the Danish capital [8].

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