


Kantonsspital Frauenfeld  
Spital Thurgau AG




**Stethoskop, Echokardiographie oder MIBI - was ist wahre Kunst in der Kardiologie ?**

Lukas Furrer, Kardiologie, Kantonsspital Frauenfeld




**Kardiolog**



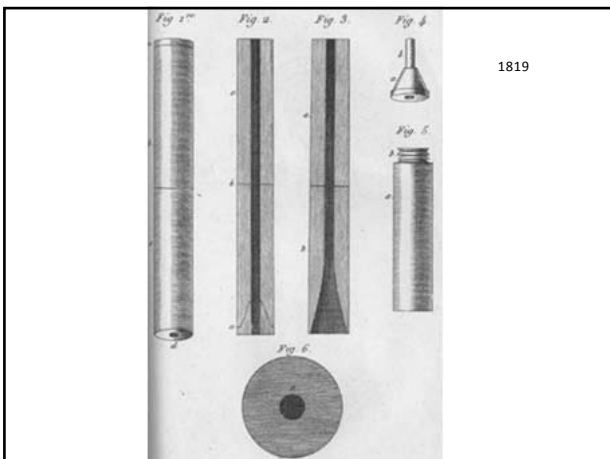

healthy-skincare.com

**FIND A SKIN DOCTOR**



What is a dermatologist? A skin doctor or dermatologist is a physician who specializes in diagnosing and treating diseases and disorders of the skin, hair, nails, and mucous membranes. They are involved in identifying and treating conditions such as acne, skin cancer, and skin aging related issues. They are also involved in cosmetic surgery treatments such as laser therapy, etc.

A regular physician should be able to deal with minor skin related problems and achieve good results for his or her patients with only basic treatments. However, for complex problems involving the skin, the experience and knowledge of a physician that specializes in the area of skin is required. Dermatologists play a vital role in healthy skin care.

« I have not found that the application of the ear is more troublesome to the patient than the stethoscope. On the contrary, the manner in which some physicians apply the instrument is painful to the patient and gives rise to much complaint. »

« Il n'y a que les oreilles pour entendre, laissez nous servir de nos oreilles et ne nous obligez pas à nous servir d'un stéthoscope. »

1997: Internisten und Allgemeinmediziner erkennen nur 20% gebräuchlicher kardialer Auskultationsbefunde

JAm MedAssoc 1997;278:717-722



This 40 year-old Mexican male complains of dyspnea on exertion and palpitations. He said that he had run a marathon in Mexico City in his youth, but found he was unable to run more than a block when trying to train for another race recently. Pulse 58, blood pressure 130/80, respirations 20, afebrile.

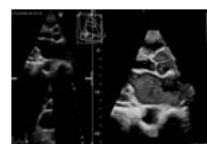
Confidential Testing of Cardiac Examination Competency in Cardiology and Noncardiology Faculty and Trainees: A Multicenter Study

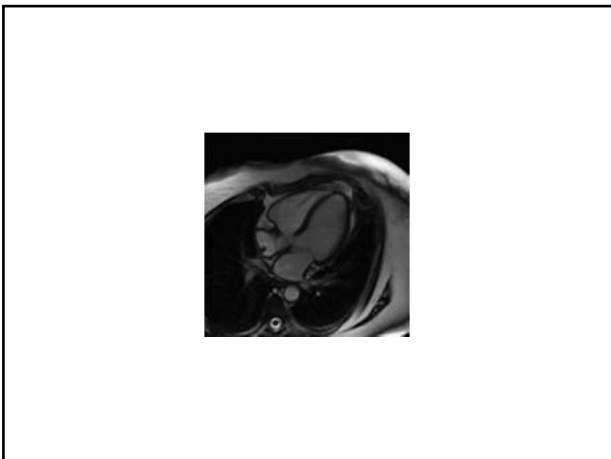
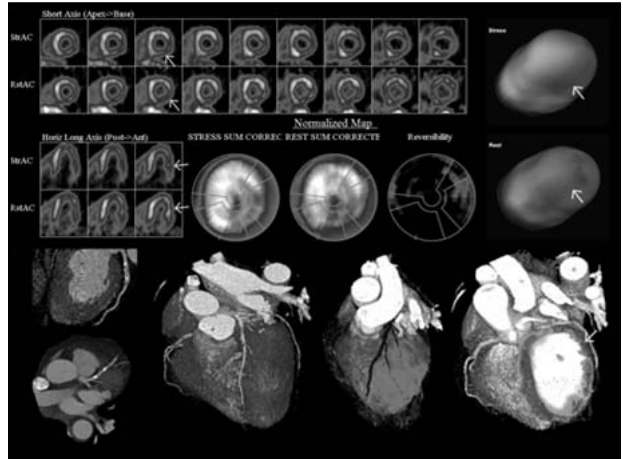
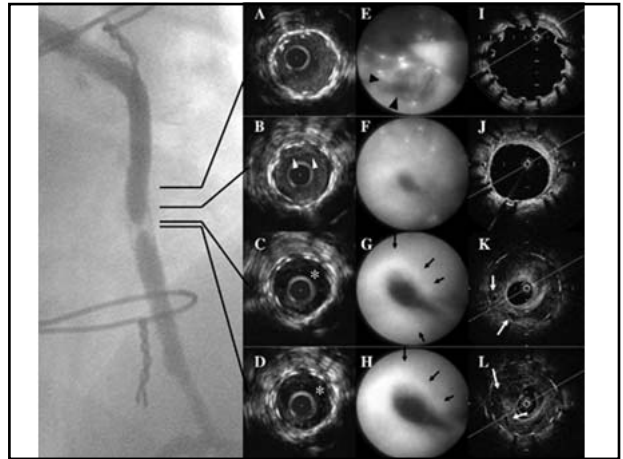
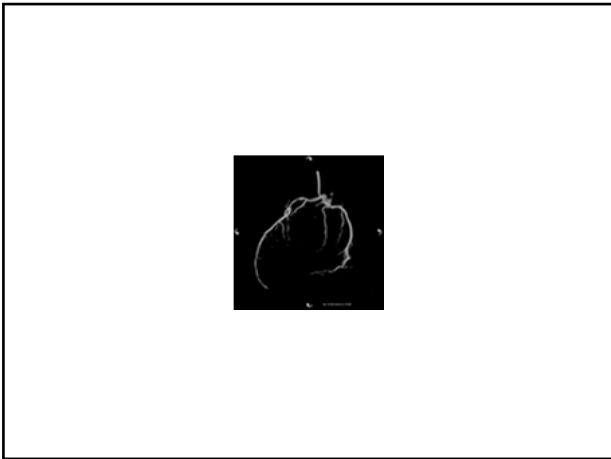
Clin. Cardiol. 33, 12, 738-745 (2010)

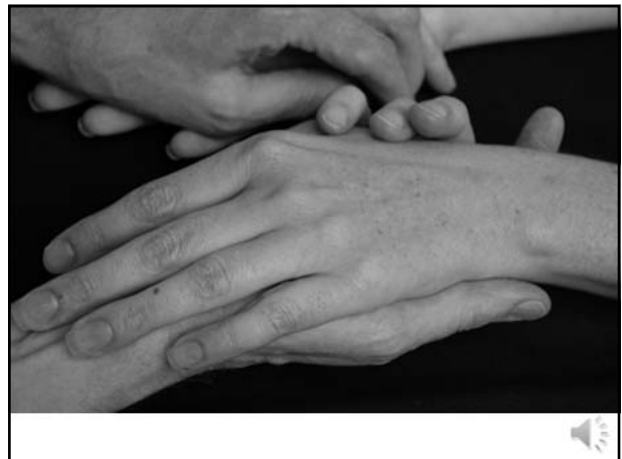
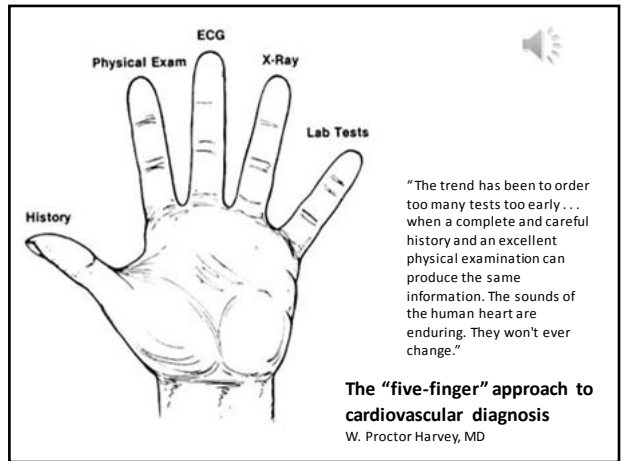
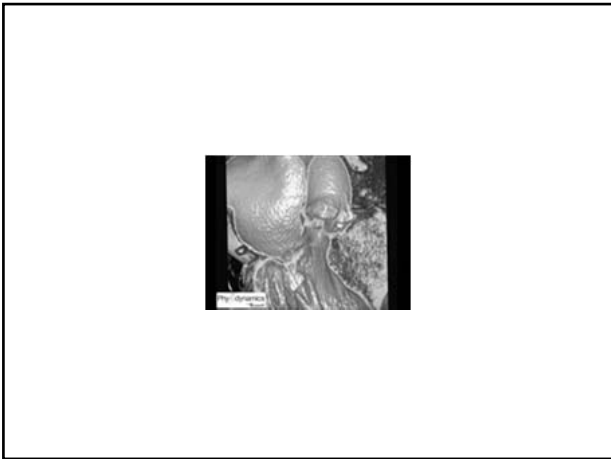
Student Newman-Keuls	N	Subset for $\alpha = 0.05$			
		Group 1	Group 2	Group 3	Group 4
Cardiology volunteer faculty	10	86.3			
Cardiology faculty	60	81.9	81.9		
Cardiology fellows	235		75.3	75.3	
Cardiology private practice	8			71.6	
IM residents	321				61.9
Noncardiology faculty	78				60.5
Medical students	396				58.2
FM residents	170				58.2
Noncardiology private practice	65				55.8

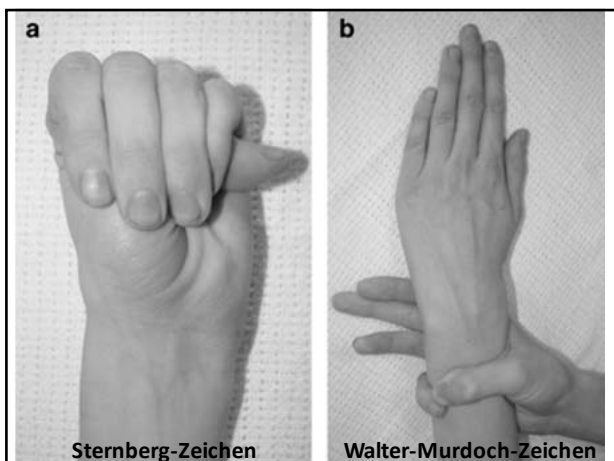
Test scores from remote and classroom testing were similar ( $P = 0.28$ , Figure 2), allowing them to be combined for the analysis in this table. Mean scores that fall into distinct groupings after statistical comparisons (by the Student Newman-Keuls test) are listed in columns. Groups 1-3 show overlapping mean scores for cardiologists and cardiology fellows. Group 4 shows that mean scores for noncardiologists, trainees and students were significantly lower ( $P < 0.05$ ). Abbreviations: FM, family medicine; IM, internal medicine.

Na und?









	Left	Right
1. Can you put your hands flat on the floor with your knees straight?	1	1
2. Can you bend your elbow backwards?	1	1
3. Can you bend your knee backwards?	1	1
4. Can you bend your thumb back on to the front of your forearm?	1	1
5. Can you bend your little finger up at 90° (right angles) to the back of your hand?	1	1

**SCORE**

≥4 Punkte = Hypermobilität

↓

90% Marfan



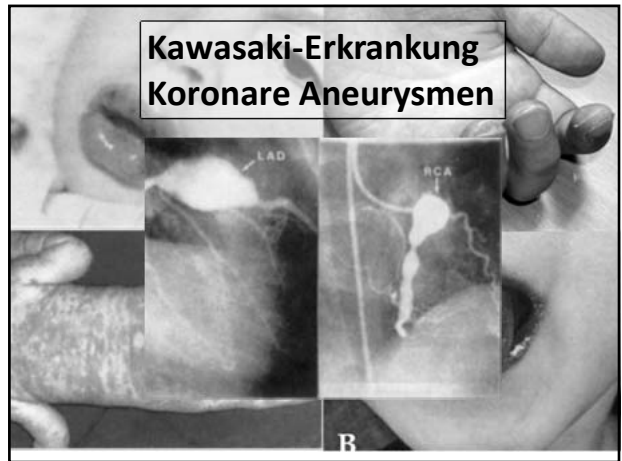
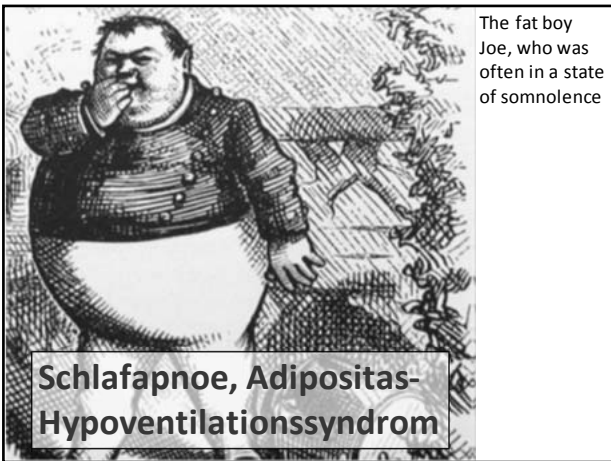
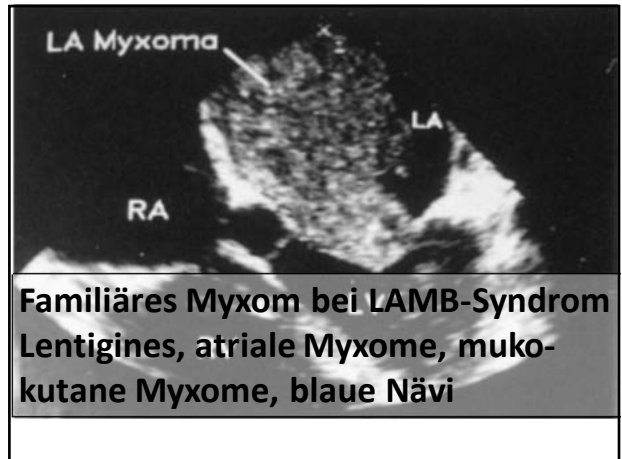
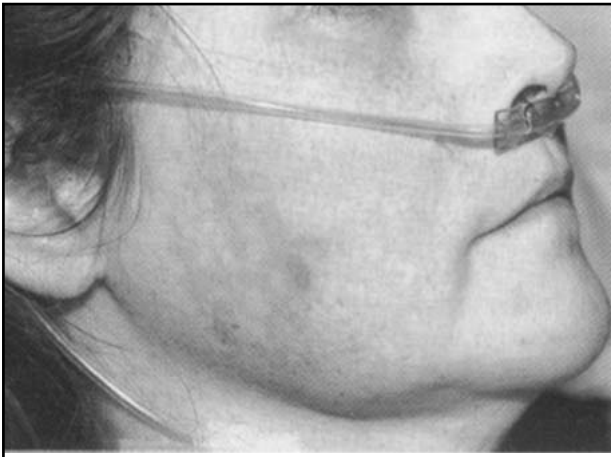
15j.  
140cm

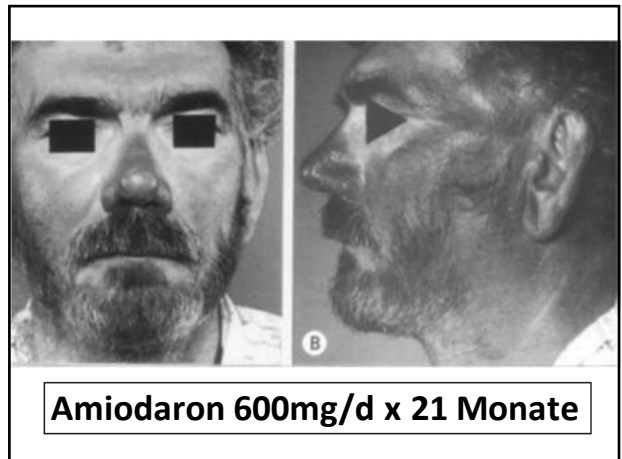
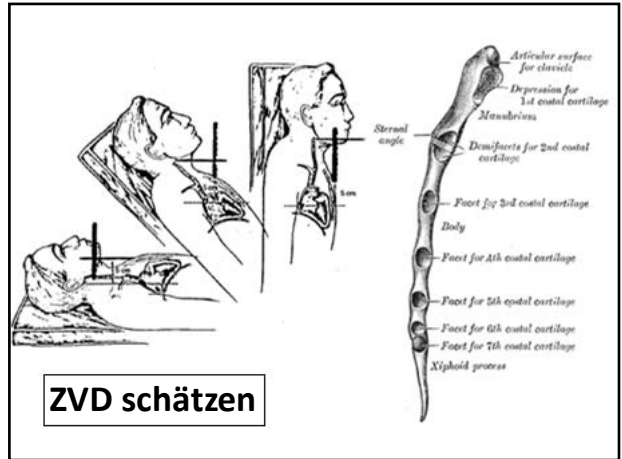
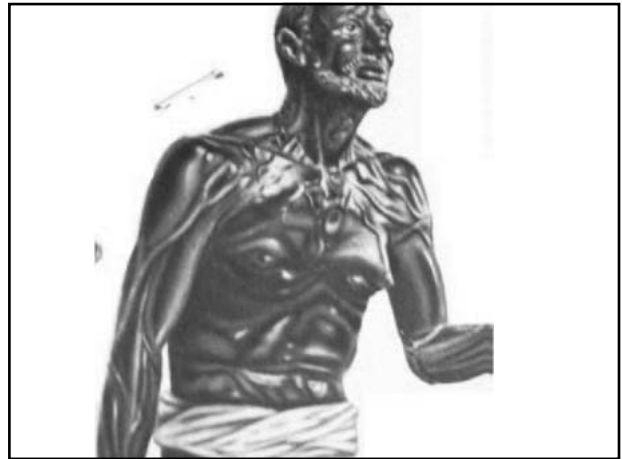
### Turner Syndrom

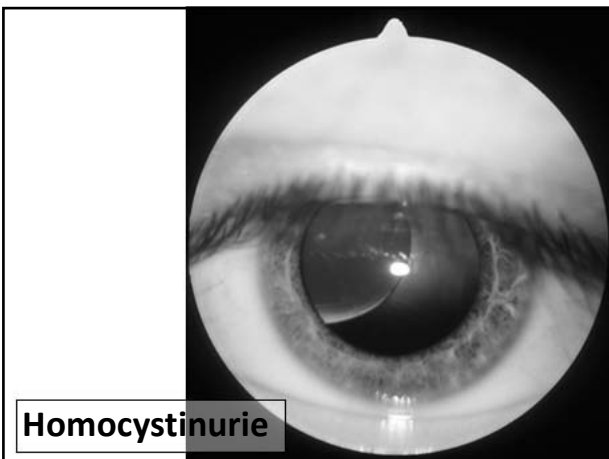
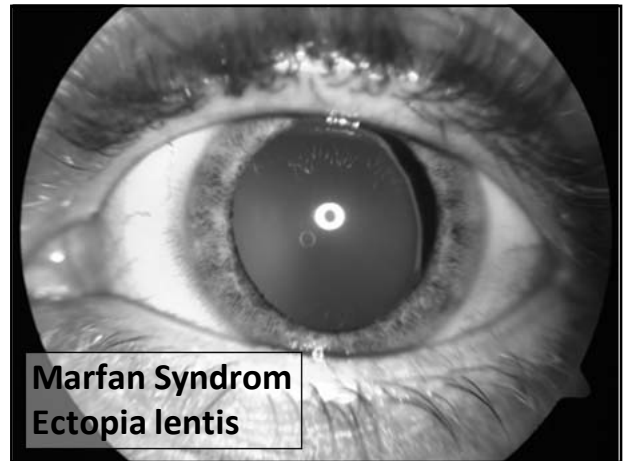
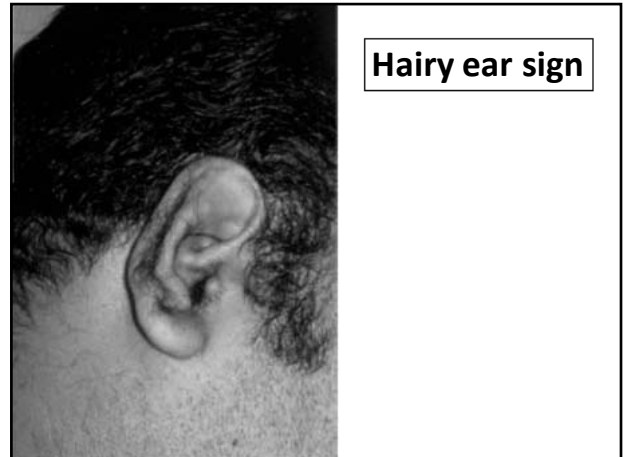
- Hypertonie
- Aortendissektion
- Bikuspidale Aortenklappe
- Coarctatio aortae

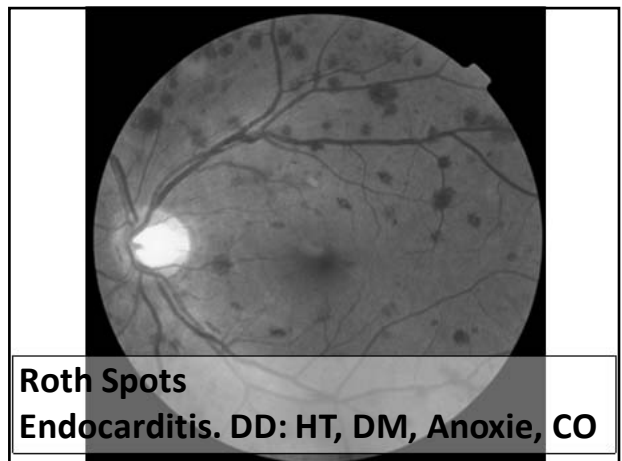
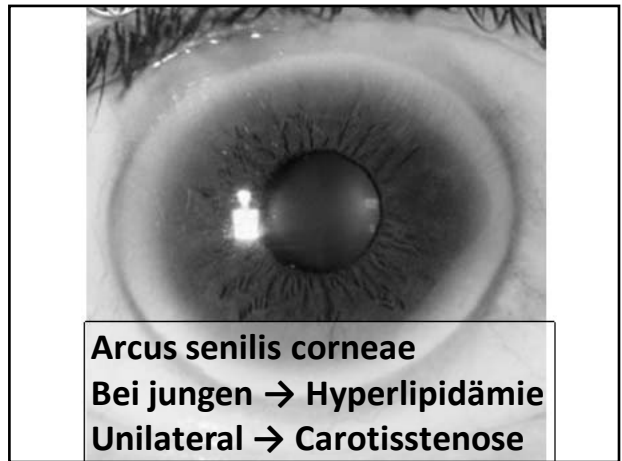
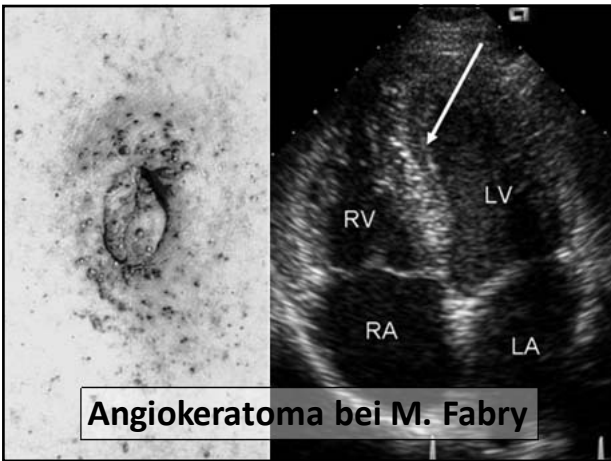
**Table B1-4 Partial List of Chromosomal Abnormalities Associated with Heart Disease**

Chromosome Defects	Syndromes	Cardiac Phenotype
45X	Turner syndrome	Coarctation of the aorta, ASD, aortic stenosis
Trisomy 5		Interrupted aortic arch
Trisomy 13	Patau syndrome	CHD, VSD
Trisomy 18	Edwards syndrome	CHD, VSD
Partial trisomy 20q		Dextrocardia
Trisomy 21	Down syndrome	CHD, ASD, VSD, PDA
Trisomy 22		VSD
Partial tetrasomy 22	Schenck-Fraccaro syndrome	CHD
Deletion 4p	Wolf-Hirschhorn syndrome	CHD
Deletion 7q11.23	Williams syndrome	CHD, supravalvular aortic stenosis, hypertension, MVP
Deletion paternal 15q11	Prader-Willi syndrome	CHD
Deletion 17p	Meier-Göckel syndrome	CHD, ASD
Deletion 22q11	CATCH-22, DiGeorge, and velocardiofacial syndromes	CHD
Rearrangement 15, 4-3	Cr (a) (a) (a)	CHD
Recombination chromosome 8	San Luis Valley syndrome	Tetralogy of Fallot











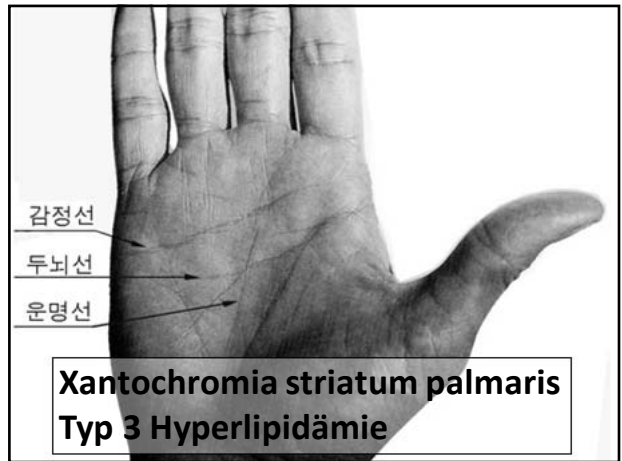
Osler-Knoten bei Endocarditis  
schmerzhaft



Janeway Läsion bei Endocarditis  
schmerzfrei



Handakupunktur unter Marcoumar



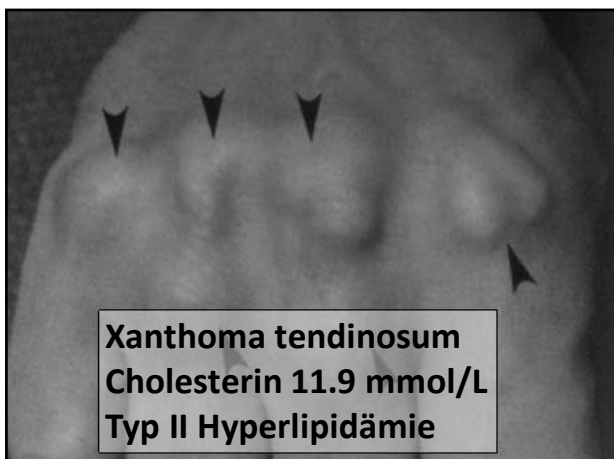
Xanthochromia striatum palmaris  
Typ 3 Hyperlipidämie

TYPE AND PREVALENCE	APPEARANCE OF PLAQUE	CHOL. LEVEL	TC LEVEL	SIGNS AND SYMPTOMS	CHD. RISK	THERAPEUTIC GOAL	SUPPLEMENTARY BRANCH OF CHOICE
I RARE	CREAMY LAYER OVER CLEAR UNDERPART OR STREAKING	↑	↑	ABNORMAL PAIN ; REPERCUSSIONS ; LIPIDIC RETICULI ; DEFTIVE LACTONASE	LOW	LOW FAT (FODS LOW IN LOW-CHOL SATY ACIDS)	NONE
II COMMON	CLEAR OR ONLY SLIGHTLY STREAKED	↑	↑	TENDON LATHROSI ; TENDON LATHROSI ; CORNEAL LATHROSI ; ATLANTIC ATROPHICUS	VERY HIGH	LOW CHOLESTEROL ; LOW SODIUM ; HIGH FIBRE POLYUNSATURATED FAT	CHOLESTYRAMINE D-THREONINE SODIUM ACID
III RARELY COMMON	CLEAR CLASSY OR MELLY	↑	↑	TENDON "TENDONITIS" AND SLASH LATHROSI ; ACCELERATED ATROPHICUS	VERY HIGH	WEIGHT CONTROL ; LOW CHOLESTEROL ; HIGH FIBRE ; CHOLESTYRAMINE ; POLYUNSATURATED ; HIGH CARBOHYDRATE	CHOLESTYRAMINE D-THREONINE SODIUM ACID
IV COMMON	CLEAR TO GRUBBLY STREAKED	↑	↑	ACCELERATED ATROPHICUS ; ABNORMAL GLUCOSE TOLERANCE	HIGH	WEIGHT CONTROL ; ALCOHOL AND CARBOHYDRATE RESTRICTION	CHOLESTYRAMINE SODIUM ACID
V COMMON	CREAMY LAYER OVER STREAKED UNDERPART OR STREAKING	↑	↑	ABNORMAL PAIN ; REPERCUSSIONS ; LIPIDIC RETICULI ; DEFTIVE LACTONASE ; ABNORMAL GLUCOSE TOLERANCE	LOW	WEIGHT CONTROL ; HIGH FIBRE ; LOW FAT AND RESTRICTED CARBOHYDRATE ; NO ALCOHOL	SODIUM ACID CHOLESTYRAMINE

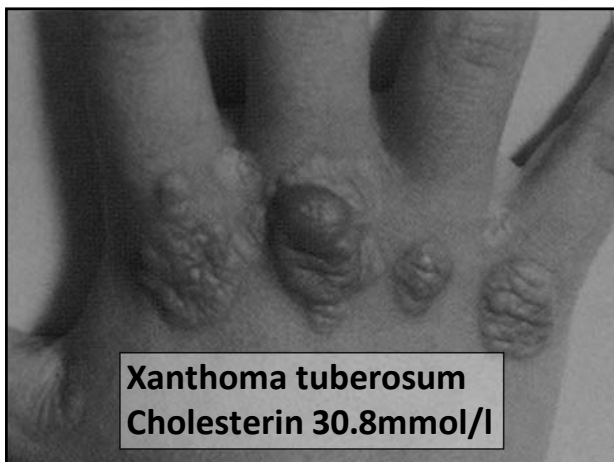
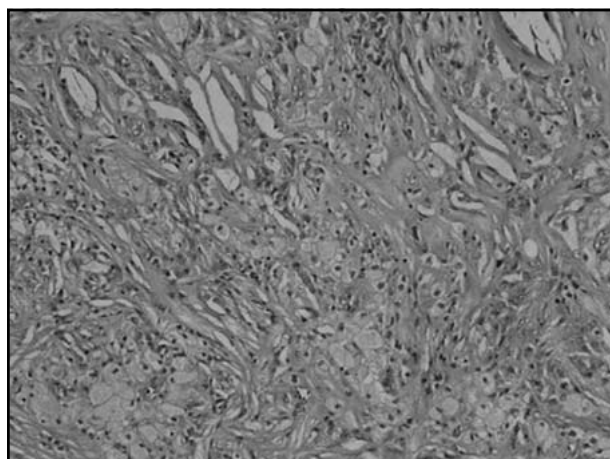
Prepared by  
Office of Heart and Lung Information  
February 1970



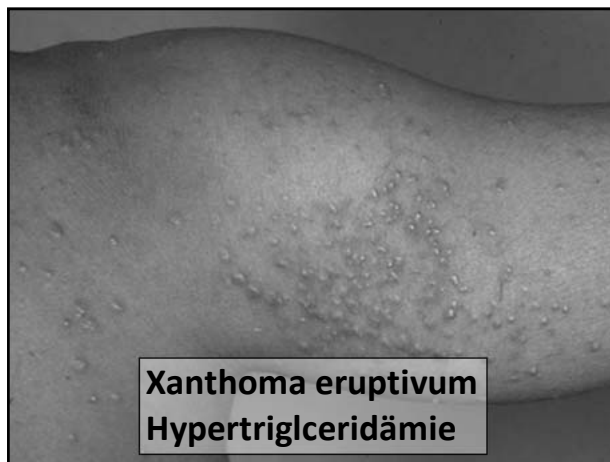
Xanthelasma palpeprarum  
Hypercholesterinämie  
auch familiäres Vorkommen



**Xanthoma tendinosum**  
Cholesterin 11.9 mmol/L  
Typ II Hyperlipidämie



**Xanthoma tuberosum**  
Cholesterin 30.8mmol/l

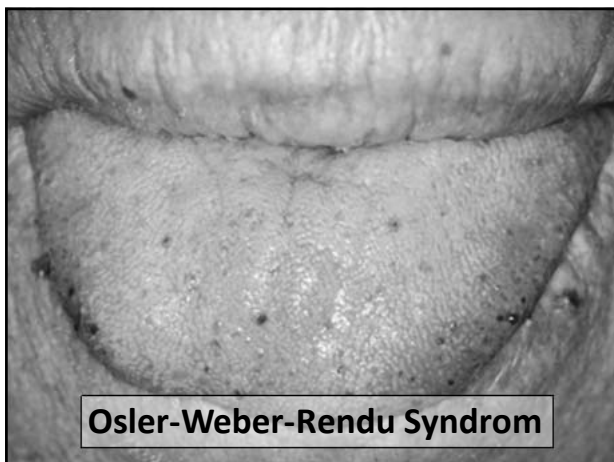


**Xanthoma eruptivum**  
Hypertriglyceridämie



**Xanthoma planum**

Xanthome	Genetische Erkrankungen
Eruptive	<sup>Ia</sup> Familiärer LPL-Mangel, familiärer Apo-CII-Mangel Familiäre Hypertriglyzeridämie <sup>IV</sup> Dysbetalipoproteinämie <sup>III</sup> <sup>Ib</sup>
Tuberöse	Dysbetalipoproteinämie <sup>III</sup> Familiäre Dysbetalipoproteinämie <sup>III</sup>
Sehnenscheiden- Handlinien-	Familiäre Dysbetalipoproteinämie <sup>III</sup> Dysbetalipoproteinämie <sup>III</sup>
Intertriginöse	Familiäre Hypercholesterinämie <sup>Ia</sup>
Xanthelasmen	Familiäre Hypercholesterinämie <sup>Ia</sup>
Arcus lipoides corneae	Familiäre Hypercholesterinämie <sup>Ia</sup>

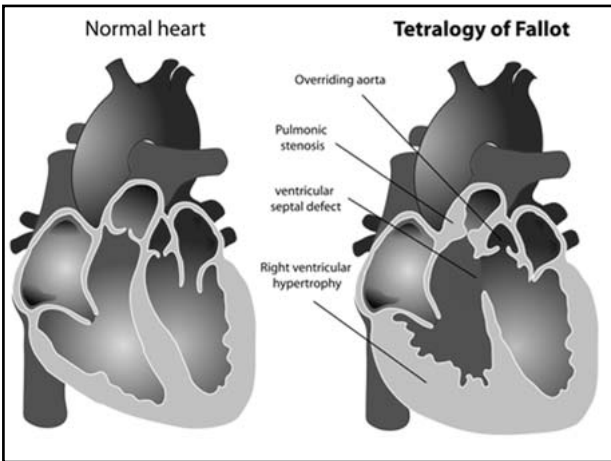




**Marcoumar-Nekrose**



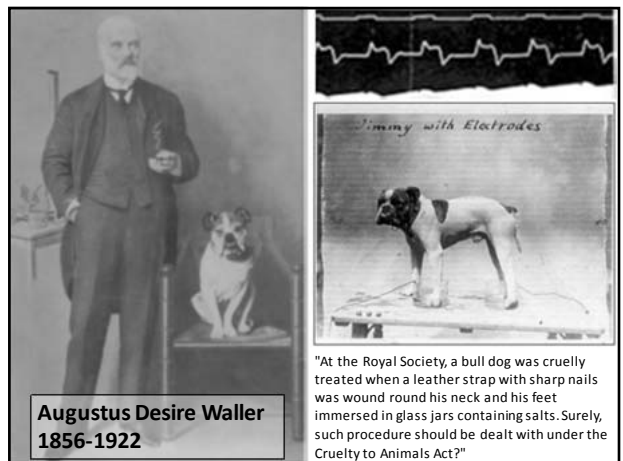
**Uhrglasnägel  
hier bei Fallot Tetralogie**



**Schamroth-Zeichen**

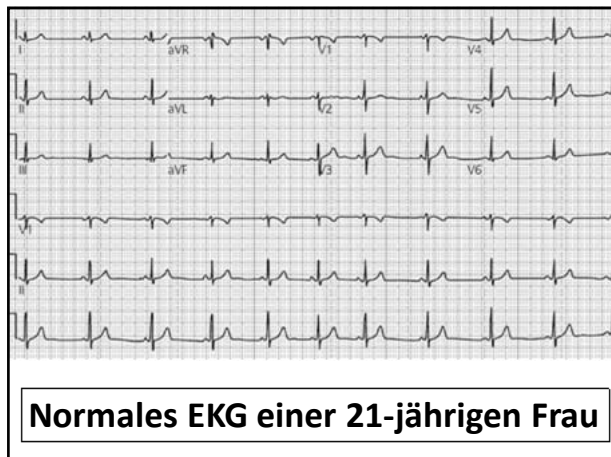
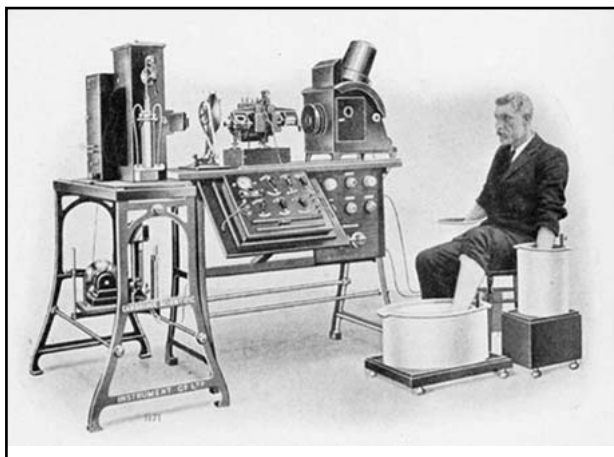


**Diagnostiker-  
Finger**

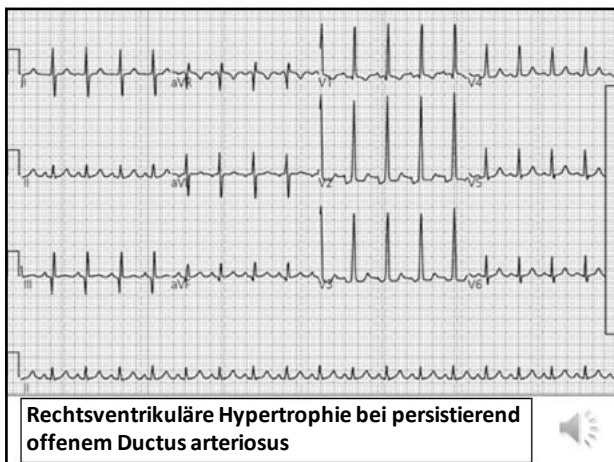


**Augustus Desire Waller  
1856-1922**

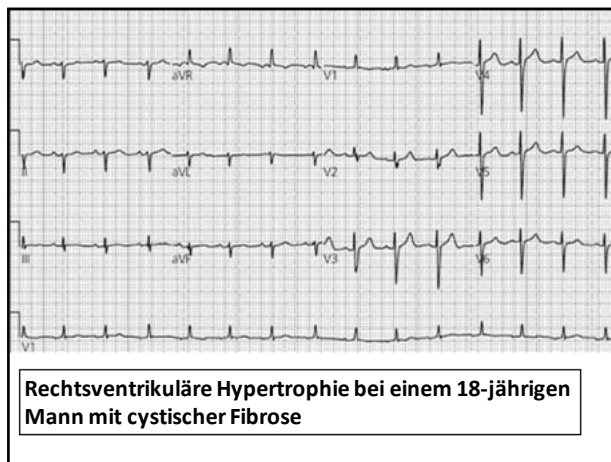
"At the Royal Society, a bull dog was cruelly treated when a leather strap with sharp nails was wound round his neck and his feet immersed in glass jars containing salts. Surely, such procedure should be dealt with under the Cruelty to Animals Act?"



**Normales EKG einer 21-jährigen Frau**



**Rechtshertzhypertrophie bei persistierend offenem Ductus arteriosus**



**Rechtshertzhypertrophie bei einem 18-jährigen Mann mit cystischer Fibrose**

**Rechtshertzhypertrophie**

- grosse R-Wellen in den rechtspräkordialen Ableitungen, tiefe S-Zacken in den linkspräkordialen Ableitungen
- R/S Verhältnis in V1 >1
- R in V1 >7 mm
- S in V1 <2 mm
- rsr' in V1 mit R' >10 mm
- S1S2S3 Muster
- R/S Verhältnis in V5 oder V6 <1
- R in aVR >5 mm

Lead II

Lead V1

LAA

RAA

**Clinical correlate**

A simple rule that is important to remember is:  
**RAD + tall R wave in V1 = RVH.**

**Table 8.1 Common ECG findings in adult patients with congenital heart disease. Note that the ECG findings are dependent upon the hemodynamic effects of the congenital heart defect. PDA, patent ductus arteriosus; ASD, atrial septal defect; VSD, ventricular septal defect; MS, mitral stenosis; PS, pulmonic stenosis; PHTN, pulmonary hypertension; TOF, tetralogy of Fallot.**

	QRS axis	QRS	RAA	RVH	LAA	LVH	Miscellaneous
Secundum ASD	Normal	rsR' in V1,	+				1AVB is common
or RAD		IRBBB or RBBB					
Primum ASD	LAD	rsR' in V1			+		1AVB is common
Sinus venosus ASD							Ectopic atrial rhythm is common
PDA	Normal	Deep S wave in V1 +/- tall R waves in V5 and V6		+/-	+	+	
MS				+			
PS or PHTN	RAD		+	+			
VSD	RAD	RBBB	+	+	+/-	+/-	ECG findings are dependent upon hemodynamic effects
Dextrocardia	RAD	Small R waves in left precordial leads					May have appearance of RVH
Unrepaired TOF	RAD		+	+			ECG is abnormal in 95%

