

# Recommendations on age diagnostics of living persons in criminal proceedings

## age diagnostics by order of the court. a case report

**Language:** English

**Authors:** Dr.med. Dr.med.dent. Claus Grundmann, German Academy of Forensic Odonto-Stomatology (AKFOS)  
Dr.med. Dr.med.dent. Klaus Rötzscher, German Academy of Forensic Odonto-Stomatology (AKFOS)

**Date/Event/Venue:**

2-7 September 2002  
16th Meeting of the International Association of Forensic Sciences  
Montpellier, France

### Introduction

Very often, groups - more than 50 people - are illegally brought across the borders into the Federal Republic of Germany. Many of those people, of course, remain jobless and without income. Most of them find their way to illegal jobs or into the world of crime. The number of foreigners without a documented or even registered date of birth is increasing.

### Objectives

An increasing number of arrested young people lead to more expertise by dentists, respectively interdisciplinary expert teams to eliminate the question whether juvenile delinquents become a case for prosecution or not.

### Material and Methods

Presently, three existing methods of age estimation on living people are applied: morphological, radiological and dental examinations.

Legal background:

Whenever x-rays are needed (in these cases without medical indication), i.e. to proof the development - maturation - of the third molar judge's decision is required in Germany:

- § 81a StPO - code of criminal procedure
  - § 24,2 RöVO - decree of x-ray-treatment
1. X-rays are allowed only for the use in medicine, dentistry and
  2. in special cases of crime control (see § 81a StPO).
  3. the examination is available without consent of the delinquent, when ordered by the judge.
- External examination of the delinquent (height, weight, sexual maturity etc.):



Fig. 1 Head en face: Black coloured hair with a fine moustache



Fig. 2 Body en face (torso)



Fig. 3 Body from reverse (torso) with typical femal hips, height 157 cm, weight 52,0 kg



Fig. 4 Sexual maturity: Mammae fully developed, papillae pigmented

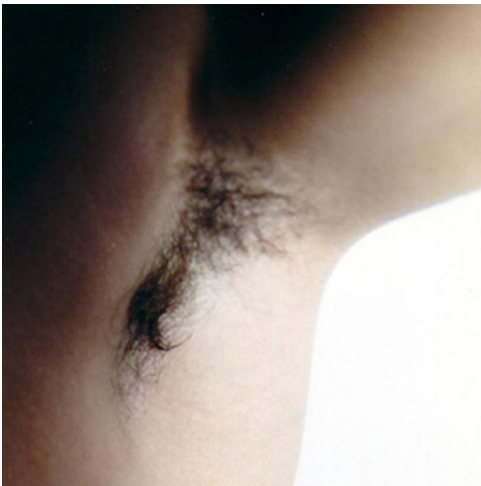


Fig. 5 Armpit haired



Fig. 6 Pubis: female characteristics fully developed.

· Oral examination including dental status and OPG



Fig.7 Jaws in occlusion



Fig.8 OPG of the right molars. Tooth 47 is missing.



Fig.9 OPG of the left molars.

The third molars female stages developed (by DEMIRJIAN) -

KAHL / SCHWARZE define stage E:

Tooth 18  $15,6 \pm 1,9$

Tooth 28  $15,9 \pm 1,2$

KAHL / SCHWARZE define stage F regarding the female wisdom teeth with an age (in years) :

Tooth 18  $17,5 \pm 4,0$

Tooth 28  $16,7 \pm 3,5$

Tooth 38  $16,7 \pm 3,5$

Tooth 48  $17,4 \pm 3,1$

· Roentgenogram of the wristbone



Fig. 10 Epiphysal lines of ulna and radius are still smooth marked. The interstices of ulna and radius are mostly ossified, but perceptible.

THIEMANN / NITZ and GREULICH / PYLE define the roentgenogram of the left wristbone belonging to a 15-16 years-old female.

· The combination of the mentioned methods leads to a better result.

## Results

The sexual maturity of the examined female is completely finished. The osseal growth of the left hand is not completely finished. The growth of the roots of the wisdom teeth is also not completely finished. Considering all findings it can be decided, that the given day of birth (October 10, 1988) is not correct.

## Conclusions

The expertise regarding the age of an accused female individual - the given date of birth: October 10, 1988. The statement of the real age is important for the proceeding. The given date is called in question. The expertise leads to results belonging to a 15-16 years-old female. Every year the working group proofs the practicability of the methods, points the way to the future and organises lectures regarding the results in research and in practice.

## Literature

1. Rötzscher K, Schmeling A, Geserick G, Kaatsch HJ, Marré B, Reisinger W, Riepert T, Ritz-Timme S, Rösing FW: Empfehlungen für die Altersdiagnostik bei Lebenden im Strafverfahren. Erarbeitet von der Arbeitsgemeinschaft für forensische Altersdiagnostik der DGZMK und der DGRM. Dtsch Zahnärztl Z 2000, 56,10: 573-574
2. Rötzscher K, Schmeling A, Geserick G, Kaatsch HJ, Marré B, Reisinger W, Riepert T, Ritz-Timme S, Rösing FW: Recommendations on Age Diagnostics of Living Persons in Criminal Proceedings. Elaborated by the German interdisciplinary working group for age diagnostics. Newsl IOFOS 2001, 23,1: 8-9

## Abbreviations

AGFAD - Arbeitsgemeinschaft für Altersdiagnostik - German Working Group for Age Diagnostics

AKFOS - Arbeitskreis für Forensische Odonto-Stomatologie - German Academy of Forensic Odonto-Stomatology

OPG - Orthopantomogramm - orthoradiogram

RöVO - Röntgenverordnung - decree of x-ray-treatment

StPO - Strafprozessordnung - code of criminal procedure

*This Poster was submitted by Dr.med. Dr.med.dent. Claus Grundmann.*

## Correspondence address:

*Dr.med. Dr.med.dent. Claus Grundmann.*

German Academy of Forensic Odonto-Stomatology (AKFOS)

Amikaweg 15

D-47445 Moers

Deutschland

Deutsche Gesellschaft für Zahn-, Mund- und Kieferheilkunde  
Deutsche Gesellschaft für Rechtsmedizin



ARbeitskreis für FORENSISCHE ODNTO-STOMATOLOGIE

**Abstract:**  
Recommendations on age diagnostics of persons in criminal proceedings is elaborated by the German interdisciplinary working group for age diagnostics (AGFAD) in 2000, including anthropologists, forensic dentists, forensic clinicians, pathologists, orthodontists and klogists.

Presently, three existing methods of age estimation on living people are applied: radiological, radiological and dental examinations.

Whenever x-rays are needed (in these cases without medical indication), i.e. to prove the development - maturation - of the third molar judge's decision is required in Germany:  
- § 81a StPO - Strafprozessordnung - code of criminal procedure  
- § 24,2 RdVO - Röntgenverordnung - decree of x-ray treatment.

(1) X-rays are allowed only for the use in medicine, dentistry and (2) in special cases of crime control (see § 81a StPO).  
(3) the examination is available without consent of the delinquent, when ordered by the judge.  
Proceedings  
Experts regarding the age of an accused female individual.  
The given date of birth: October 10, 1988.  
The statement of the real age is important for the proceeding. The given date is called in question.

**RECOMMENDATIONS ON AGE DIAGNOSTICS OF LIVING PERSONS IN CRIMINAL PROCEEDINGS. A CASE REPORT**  
Rätzscher K, Grundmann C



Fig. 1 Head on face: Black coloured hair with a fine moustache (Fig. 1)



Fig. 2 Body on face (front) (Fig. 2)



Fig. 3 Body on reverse with typical female hips, height 157, weight 52,0 kg (Fig. 3)

**Material and Method:**  
Presently, three existing methods of age estimation on living people are applied: morphological, radiological and dental examinations.

**Legal background:**  
Whenever x-rays are needed (in these cases without medical indication), i.e. to prove the development - maturation - of the third molar judge's decision is required in Germany:  
- § 81a StPO - Strafprozessordnung - code of criminal procedure  
- § 24,2 RdVO - Röntgenverordnung - decree of x-ray treatment.

(1) X-rays are allowed only for the use in medicine, dentistry and (2) in special cases of crime control (see § 81a StPO).  
(3) the examination is available without consent of the delinquent, when ordered by the judge.  
Proceedings  
Experts regarding the age of an accused female individual.  
The given date of birth: October 10, 1988.  
The statement of the real age is important for the proceeding. The given date is called in question.

**External examination of the delinquent (height, weight, sexual maturity etc.)**  
Fig. 1 Head on face: Black coloured hair with a fine moustache.  
Fig. 2 Body on face (front).  
Fig. 3 Body on reverse with typical female hips, height 157, weight 52,0 kg.  
Fig. 4 Sexual maturity: Mammae fully developed, papillae pigmented.  
Fig. 5 Armpit haired.  
Fig. 6 Pubic: female characteristics fully developed.

**Dental examination including dental status and orthopantomogram (OPG)**  
Fig. 7 Jaws in occlusion.  
Fig. 8 and 9 Orthopantomograms (OPG) of the molars. Missing tooth number 47.  
The third molars female stages developed (by DEMIRJAN).



Fig. 4 Sexual maturity: Mammae fully developed, papillae pigmented (Fig. 4)



Fig. 5 Armpit haired (Fig. 5)



Fig. 6 Pubic: female characteristics fully developed (Fig. 6)

Tooth 18 15,6 +/- 1,9; 28 15,9 +/- 1,2 (KAHL / SCHWARZE define stage E).  
Tooth 18 17,5 +/- 4,6; 28 16,7 +/- 3,5; 38 16,7 +/- 3,5; 48 17,4 +/- 3,1 (KAHL / SCHWARZE define stage F (by DEMIRJAN) regarding the female wisdom teeth with an age (in years).  
• Rootogram of the wisdom teeth of the left and right sides. The interstices of the roots of the wisdom teeth are mostly smoothed, but not completely smoothed.  
• GREULICH / PYLE define the rootogram of the left wisdom teeth belonging to a 15-16 year-old female.  
• The combination of the mentioned methods leads to a better result.

**Results and Conclusions:**  
The sexual maturity of the examined female is completely finished. The ossal growth of the left hand is not completely finished. The growth of the roots of the wisdom teeth is also not completely finished. Considering all findings it can be decided, that the given day of birth (October 10, 1988) is not correct. The expertise leads to results belonging to a 15-16 year-old female.  
Every year the working group proofs the practicability of the methods, points the way to the future and organizes lectures regarding the results in research and in practice.

**Bibliographic Data:**  
Rätzscher K, Schmelting A, Gewerick G, Katsch LH, Mann B, Reisinger W, Rapert T, Ritz-Tenne S, Rösing FW (2000) Empfehlungen für die Altersdiagnostik bei Lebenden im Strafverfahren. Erarbeitet von der Arbeitsgemeinschaft für forensische Altersdiagnostik der DGZMK und der DGfRM. Dtsch Zahnärztl Z Jg 56, H. 10: 573-574



Fig. 7 Jaws in occlusion (Fig. 7)



Fig. 8 and 9 Orthopantomograms (OPG) of the molars. Missing tooth number 47 (Fig. 8 and 9)



Fig. 10 Epiphyseal lines of ulna and radius smooth marked. The interstices of the roots of the wisdom teeth are mostly smoothed, but not completely smoothed (Fig. 10)

Corresponding address:  
Dr. Dr. Claus Grundmann  
Amikweg 15, D-47445 Moers