

PINAL COUNTY

WIDE OPEN OPPORTUNITY

**AMENDED
FORENSIC EXAMINATION REPORT
GLENN THOMAS TATE, JR.
PINAL COUNTY ME CASE #24-0212
GILA RIVER POLICE DEPARTMENT
CASE #240220-00763**

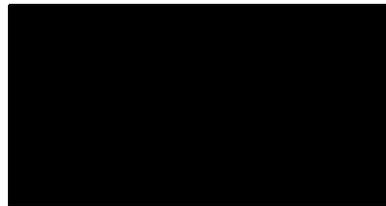


Report of Examination

Decedent: Glenn Thomas Tate, Jr.
Date of death: February 20, 2024
Date of examination: February 26, 2024
Time of examination: 1325 hours
Investigator: Suzi Dodt
Forensic Technician: Breanna McGinnis, Stephanie Rowells
Present at examination: No agency is present

Cause of Death: Undetermined
Manner of Death: Undetermined

September 24, 2025
Date Signed



John Hu, MD
Chief Medical Examiner

Note: This amended report reflects updated identification of the decedent based on DNA comparison with family members. All other elements of the report remain unchanged.



REPORTED CIRCUMSTANCES OF DEATH

On February 20, 2024, Gila River Police received a call regarding human remains found in a desert area. The callers stated they were walking along a canal area in Sacaton when they discovered what appeared to be a human skull. An officer arrived on the scene, confirmed a human cranium, and pronounced dead.

Past Medical/Surgical History

There is no known medical history at the time of this report.

INITIAL EXTERNAL EXAMINATION

The body is received in a zippered body pouch secured by evidence seal number 0007681.

CLOTHING AND PERSONAL EFFECTS

All property is documented on the property sheet that is separate in the file.

EVIDENCE OF MEDICAL INTERVENTION

No evidence of medical intervention is observed on the decedent's remains.

EVIDENCE OF TRAUMA

No evidence of trauma is observed on the decedent's remains.

GENERAL EXTERNAL EXAMINATION

Please reference the attached detailed forensic anthropology report.

TOXICOLOGY SPECIMENS

Samples of the following are collected, and some have been submitted for toxicological testing. The toxicology report is attached.

- Brain tissue.

FINAL SUMMARY

Based on the forensic examination findings and investigative history as available to me, the cause of death is undetermined. The manner of death is undetermined.

As with all death investigations, opinions expressed herein are amenable to change should new,



reliable, and pertinent information come to light. The Pinal County Medical Examiner's Office is required by statute (A.R.S. § 11-594(A) (2) and (4)) to certify the cause and manner of death following completion of the death investigation of each case over which it assumes jurisdiction, and to promptly execute a death certificate, on a form provided by the state registrar of vital statistics, indicating the cause and manner of death. The form provided by the state registrar of vital statistics includes five manners of death: homicide, suicide, accident, natural, and undetermined. The determination of manner of death is a forensic determination by the pathologist predicated upon the totality of all then-known forensic evidence and other circumstances surrounding the cause of death; it is not a legal determination of criminal or civil responsibility of any person(s) for the death. The significant findings below may not be a complete list of the decedent's medical history. This report was partially generated using Dragon's automated dictation software and may contain minor transcription errors.

Significant findings

- I. Human skull
 - a. Estimated age at death: Adult \leq 69 years
 - b. Estimated sex: Male, Native American/Hispanic
 - c. Postmortem interval 6 months - 3 years

- II. Trauma (healed)
 - a. Antemortem sharp force
 - b. Antemortem blunt force

- III. Toxicology
 - a. Amphetamine 180ng/g – Brain tissue
 - b. Methamphetamine 1000 ng/g – Brain tissue





NMS Labs

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Robert A. Middleberg, PhD, F-ABFT, DABCC-TC, Laboratory Director

Toxicology Report

Report Issued 03/21/2024 11:01

Patient Name Unidentified, Remains
Patient ID 240221-36
Chain 240221-36
DOB Not Given
Sex Unknown
Workorder 24086225

To: 146677
Pinal County Medical Examiner's Office
920 N Bowling Rd

Florence, AZ 85132

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Positive Findings:

<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>Matrix Source</u>
Amphetamine	180	ng/g	002 - Brain Tissue
Methamphetamine	1000	ng/g	002 - Brain Tissue

See Detailed Findings section for additional information

Agency Case Number: 24-0212

Testing Requested:

<u>Test</u>	<u>Test Name</u>
8051TI	Postmortem, Basic, Tissue (Forensic)

Tests Not Performed:

Part or all of the requested testing was unable to be performed. Refer to the **Analysis Summary and Reporting Limits** section for details.

Specimens Received:

<u>ID</u>	<u>Tube/Container</u>	<u>Volume/ Mass</u>	<u>Collection Date/Time</u>	<u>Matrix Source</u>	<u>Labeled As</u>
001	White Cap Plastic Container	23.6 g	02/26/2024 13:35	Brain Tissue	24-0212
002	Homogenate Container	Not Given	02/26/2024 13:35	Brain Tissue	Not Applicable

All sample volumes/weights are approximations.
Specimens received on 02/28/2024.



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Workorder 24086225
Chain 240221-36
Patient ID 240221-36

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Detailed Findings:

Analysis and Comments	Result	Units	Rpt. Limit	Specimen Source	Analysis By
Amphetamine	180	ng/g	35	002 - Brain Tissue	LC-MS/MS
Methamphetamine	1000	ng/g	140	002 - Brain Tissue	LC-MS/MS

Other than the above findings, examination of the specimen(s) submitted did not reveal any positive findings of toxicological significance by procedures outlined in the accompanying Analysis Summary.

Reference Comments:

1. Amphetamine - Brain Tissue:

Amphetamine is a Schedule II phenethylamine CNS-stimulant. It is used therapeutically in the treatment of narcolepsy and obesity and also in the treatment of hyperactivity in children. Amphetamine has a high potential for abuse. Amphetamine is also a metabolite of methamphetamine and selegiline.

Overdose with amphetamine can produce restlessness, hyperthermia, convulsions, hallucinations, respiratory and/or cardiac failure.

2. Methamphetamine - Brain Tissue:

d-Methamphetamine is a DEA schedule II stimulant drug capable of causing hallucinations, aggressive behavior and irrational reactions. Chemically, there are two forms (isomers) of methamphetamine: l- and d-methamphetamine. The l-isomer is used in non-prescription inhalers as a decongestant and has weak CNS-stimulatory activity. The d-isomer has been used therapeutically as an anorexigenic agent in the treatment of obesity and has potent CNS-, cardiac- and circulatory-stimulatory activity. Amphetamine and norephedrine (phenylpropanolamine) are metabolites of methamphetamine. d-Methamphetamine is an abused substance because of its stimulatory effects and is also addictive.

High doses of methamphetamine can also elicit restlessness, confusion, hallucinations, circulatory collapse and convulsions.

*In this case, the level of methamphetamine determined has not been differentiated according to its isomeric forms.

Sample Comments:

- 001 Physician/Pathologist Name: John Hu,MD,Ph.D.
- 001 Tissue specimen required homogenization: 24086225-001
- 002 NMS Labs generated homogenized Tissue sample: 24086225-002

Unless alternate arrangements are made by you, the remainder of the submitted specimens will be discarded one (1) year from the date of this report; and generated data will be discarded five (5) years from the date the analyses were performed.

Workorder 24086225 was electronically signed on 03/21/2024 10:57 by:



Nicholas P. Larata, MSFS
Forensic Toxicologist



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Workorder 24086225
Chain 240221-36
Patient ID 240221-36

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Analysis Summary and Reporting Limits:

All of the following tests were performed for this case. For each test, the compounds listed were included in the scope. The Reporting Limit listed for each compound represents the lowest concentration of the compound that will be reported as being positive. If the compound is listed as None Detected, it is not present above the Reporting Limit. Please refer to the Positive Findings section of the report for those compounds that were identified as being present.

Test 50002TI - Amphetamines Confirmation, Tissue - Brain Tissue

-Analysis by High Performance Liquid Chromatography/ Tandem Mass Spectrometry (LC-MS/MS) for:

Analyte	Rpt. Limit	Analyte	Rpt. Limit
Amphetamine	35 ng/g	MDMA	70 ng/g
MDA	70 ng/g	Methamphetamine	140 ng/g

Test 50011TI - Barbiturates Confirmation, Tissue - Brain Tissue

-Analysis by Gas Chromatography/Mass Spectrometry (GC/MS) for:

Analyte	Rpt. Limit	Analyte	Rpt. Limit
Butalbital	1.4 mcg/g	Phenobarbital	3.5 mcg/g
Pentobarbital	N/A	Secobarbital	1.4 mcg/g

Not Reported: Pentobarbital: Canceled due to an interfering substance.

Test 50013TI - Cannabinoids Confirmation (Qualitative), Tissue - Brain Tissue

-Analysis by High Performance Liquid Chromatography/ Tandem Mass Spectrometry (LC-MS/MS) for:

Analyte	Rpt. Limit	Analyte	Rpt. Limit
11-Hydroxy Delta-9 THC	N/A	Delta-9 THC	N/A
Delta-9 Carboxy THC	N/A		

Not Reported: 11-Hydroxy Delta-9 THC: Canceled due to Sample Matrix Problem.

Not Reported: Delta-9 Carboxy THC: Test was canceled due to [Sample Matrix Problem].

Not Reported: Delta-9 THC: Canceled due to Sample Matrix Problem.

Test 52167TI - Buprenorphine and Metabolite - Total (Conjugated/Unconjugated) Confirmation, Tissue - Brain Tissue

-Analysis by High Performance Liquid Chromatography/ Tandem Mass Spectrometry (LC-MS/MS) for:

Analyte	Rpt. Limit	Analyte	Rpt. Limit
Buprenorphine - Total	N/A	Norbuprenorphine - Total	35 ng/g

Not Reported: Buprenorphine - Total: Canceled due to Sample Matrix Problem.

Test 52484TI - Fentanyl and Acetyl Fentanyl Confirmation, Tissue - Brain Tissue

-Analysis by High Performance Liquid Chromatography/ Tandem Mass Spectrometry (LC-MS/MS) for:

Analyte	Rpt. Limit	Analyte	Rpt. Limit
Acetyl Fentanyl	3.5 ng/g	Norfentanyl	7.0 ng/g
Fentanyl	3.5 ng/g		

Test 8051TI - Postmortem, Basic, Tissue (Forensic) - Brain Tissue

-Analysis by Enzyme-Linked Immunosorbent Assay (ELISA) for:



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Workorder 24086225
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Analysis Summary and Reporting Limits:

<u>Analyte</u>	<u>Rpt. Limit</u>	<u>Analyte</u>	<u>Rpt. Limit</u>
Amphetamines	140 ng/g	Fentanyl / Acetyl Fentanyl	7.0 ng/g
Barbiturates	0.28 mcg/g	Methadone / Metabolite	170 ng/g
Benzodiazepines	700 ng/g	Methamphetamine / MDMA	140 ng/g
Buprenorphine / Metabolite	3.5 ng/g	Opiates	140 ng/g
Cannabinoids	70 ng/g	Oxycodone / Oxymorphone	70 ng/g
Cocaine / Metabolites	140 ng/g	Phencyclidine	70 ng/g

-Analysis by Headspace Gas Chromatography (GC) for:

<u>Analyte</u>	<u>Rpt. Limit</u>	<u>Analyte</u>	<u>Rpt. Limit</u>
Acetone	35 mg/100 g	Isopropanol	35 mg/100 g
Ethanol	140 mg/100 g	Methanol	70 mg/100 g

John Hu, MD, Ph.D.
Chief Medical Examiner

Andrea L. Wiens, DO
Medical Examiner

Courtney Koppenhaver-Astrom, Ph.D.
Forensic Anthropologist

Case number: 24-0212
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FORENSIC ANTHROPOLOGY REPORT

PCMEO Case Number- 24-0212

Summary

Sex: Male
Age at death: ≤ 69 years
Population Affinity: Native American/Hispanic
Stature: Undetermined
PMI: 6 months-3 years
Traumata: Antemortem sharp force
Antemortem blunt force
Pathology: Dental caries

Circumstances

These remains were reportedly found by members of the public in a desert location in southern Arizona (approximately 33.058889, -111.726389) on February 20, 2024. The individuals reported the remains to the Gila River Police Department (GRPD) at 1525 hours and death was pronounced at 1554 hours by Officer Rolan (GRPD). These remains and property were placed into a body pouch and transported to the Pinal County Medical Examiner's Office (PCMEO seal #0007681).

Condition of Remains

The skeletal remains were confirmed to be human based on gross morphology. The skull was largely complete with the exception of the inferior portion of the right nasal bone and several maxillary and mandibular teeth, which had been lost during the postmortem period. The following postcranial elements were present: right os coxae, right tibia, two (2) cervical vertebrae (including the axis), and two thoracic vertebrae.

Partially desiccated brain tissue was found within the cranial vault, but the remains were otherwise dry with no retention of grease. Sunbleaching, exfoliation, drying cracks, brown soil staining, and animal scavenging were apparent throughout these remains.

Given the lack of duplicate elements, consistent condition and size of the recovered elements, and lack of evidence suggesting a MNI greater than one, these remains are presumed to represent a single individual.

Ten (10) non-human skeletal elements had also been included with the human skeletal remains.

Pinal County Medical Examiner's Office

920 N. Bowling Road, P.O. Box 2728 Florence, AZ 85132 T 520-866-7260 F 520-866-7296 www.pinalcountyz.gov



Sex Estimation: Male

Sex was estimated primarily based on features of the skull (nuchal crest, mastoid process, supra-orbital margin, and supra-orbital ridge) as described by Klales and Cole (2018) (Table 1). The mental eminence was assessed, but was not included in the analysis due to the low level of observer agreement regarding this trait.

Table 1 Assessed features of the cranium as described by Klales and Cole (2018). Note: all scores are on a scale from 1 to 5.

Feature	Scale	Description	Score
Nuchal crest	Most gracile to most robust	Clear posterior projection without inferior projection	4
Mastoid process (L)	Smallest to largest	Large and long	4
Mastoid process (R)	Smallest to largest	Large and long	4
Supra-orbital margin (L)	Sharpest to most rounded	Blunted and very thick	5
Supra-orbital margin (R)	Sharpest to most rounded	Blunted and thick	4
Supra-orbital ridge	Little/no projection to most pronounced	Anterior projection; rounded	4

The scores described in Table 1 were imported to MorphoPASSE (Klales 2018) and analyzed using random forest modeling. The analysis of the described scored features, when including all populations of a contemporary period, indicate a 99.8% probability of this individual being male with a model accuracy of 85.04% (Kappa value: 0.7008).

One (1) sexually dimorphic feature of the os coxae (greater sciatic notch) was also assessed according to methods established by Walker (2005). The greater sciatic notch was neither wide nor narrow and most consistent with a score of 3 on a scale from 1 (widest) to 5 (most narrow), which indicated an 88% probability of this individual being male.

Age-at-Death Estimation: ≤ 69 years

The presence of adult dentition, evidence of erupted third molars, and the fusion of all epiphyses of bones present confirm that these are the remains of an adult.

The auricular surface exhibited coarse granularity, transverse organization, microporosity, slight retroauricular activity, and early apical changes. These features best fit this individual in phases 2 and 3 of 6 (1 being the youngest age range, 6 being the oldest) according to age-estimation methods established by Osborne *et al.* (2004). Phases 2 and 3 indicate an age of ≤69 years.



The sutures of the cranial vault were overall open (0) or minimally closed (1). The closure levels of these sutures resulted in a composite score of 1, which correlates with an age range of 19-44 years with a mean age of 30.5 years. The sutures of the lateral-anterior region were also overall open (0) or minimally closed (1). The closure levels of these sutures resulted in a composite score of 1, which correlates with an age range of 21-42 years with a mean age of 32 years (Meindl and Lovejoy 1985).

Given these ranges, a final age estimate of ≤ 69 years is most likely as cranial sutures exhibit considerable variation in closure rates.

Population Affinity: Native American/Hispanic

Both metric and non-metric methods of ancestry estimation were used.

Several macromorphoscopic traits consistent with Native American/Hispanic populations were noted to be present on these remains, including: short base chord, high base angle, some complex sutures, round orbits, small nasal spine, projecting zygomatics, marked posterior zygomatic tubercle, enamel extensions, straight palatine suture, and blurred nasal sill (Gill 1998; Birkby et al. 2008; Hefner 2009).

Further non-metric features of ancestry were also assessed using MaMD Analytical 1.0.0 (Hefner, 2024). An analysis based on eight (8) observable measurements (slight anterior nasal spine, anteriorly sloped inferior nasal aperture, medium interorbital breadth, slight malar tubercle, narrow nasal aperture width, presence of a postbregmatic depression, moderate posterior zygomatic tubercle, and recurved zygomaticomaxillary suture) was run comparing all populations. Through this analysis, this individual was predicted to be of African American descent with a posterior probability of 64.60% and an accuracy of 69.23%.

Metric methods of population affinity assessment were applied with 27 cranial measurements and six (6) mandibular measurements imported to Fordisc 3.1 (Jantz and Ousley 2005). Discriminant function analyses (DFA) were run using a Forward Wilks' stepwise selection of variables with the progressive exclusion of male populations with posterior probabilities less than 0.005. Based on 25 Forward Wilks' selected measurements, the final iteration produced a DFA for six (6) populations (Hispanic, Guatemalan, Black, White, Chinese, and Japanese) with a 66.6% cross-validated classification accuracy. This iteration classified this individual as Hispanic with a posterior probability of 47.7% with 0.018 typicality.

An additional analysis of quantitative and macromorphoscopic characteristics of these remains was performed using (hu)MANid (Berg & Kenyhercz 2017). Using six (6) metric measurements and six (6) macromorphoscopic scores of the mandible, a mixture discriminant analysis (MDA) was run using a Forward Wilks' stepwise selection of variables with the progressive exclusion of populations with posterior probabilities less than 0.005. Based on seven (7) Forward Wilks' selected measurements, the final iteration produced a MDA for seven (7) populations with a 63.9% cross-validated classification



accuracy. This iteration classified this individual as White with a posterior probability of 38.3% with 0.666 typicality.

Given the findings of these analyses, this individual was estimated to be most similar to Native American and Hispanic populations.

Stature Estimation: Undetermined

Stature could not be assessed based on the recovered remains.

Postmortem Interval (PMI): 6 months – 3 years

The remains were overall dry with remnants of soft tissue within the cranial vault only. Sunbleaching, exfoliation, and drying cracks were apparent throughout the remains. Based on the overall condition of the remains and the environment in which they were found (arid and open air), the postmortem interval was estimated to be 6 months-3 years before the recovery date (February 20, 2024) (Galloway et al., 1989).

Traumata

Three (3) traumatic defects were observed on these remains:

- **Defect 1:** located along the squamosal suture on the left parietal, approximately 39 mm posterior to the coronal suture. The bone had completely healed prior to death, but a malunion was apparent. The displaced segment, which was rectangular in shape and exhibited no associated fractures, measured approximately 27 mm in length and 12 mm in width with the superior margin of the bone protruding approximately 5 mm from the adjacent bone. This wound did not extend to the internal table of the bone.
- **Defect 2:** located on the superior face of both parietals, crossing the sagittal suture in an anterior left to posterior right, diagonal orientation approximately 48 mm anterior to lambda. The lesion consisted of a primarily linear defect which curved slightly along the right margin, exhibited no associated fractures, and measured approximately 57 mm in length. The bone had completely healed prior to death, but a malunion was apparent with the anterior margin of the bone protruding approximately 3 mm from the adjacent bone. This wound did not extend to the internal table of the bone.
- **Defect 3:** located on both nasal bones, approximately 14 mm inferior to nasion. The fracture extended between the lateral margins of the nasal bones, but did not extend to either of the articulating maxillae. The fracture along the left nasal bone had completely healed prior to death, but a malunion was apparent with the inferior portion of the bone protruding approximately 4 mm from the adjoining maxilla. The portion of the right nasal bone that was inferior to the fracture was not recovered.

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Case number: 24-0212
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Defects 1 and 2 exhibited characteristics that were consistent with antemortem sharp force trauma while Defect 3 was consistent with antemortem blunt force trauma.

One (1) indentation was observed on the right occipital, though the etiology of the abnormality is undetermined.

Pathology

Two (2) dental caries were observed: one (1) on the occlusal surface of the right maxillary first and third molar.



Courtney Koppenhaver-Astrom, PhD, D-ABMDI

Date: 06/11/2024

Forensic Anthropologist

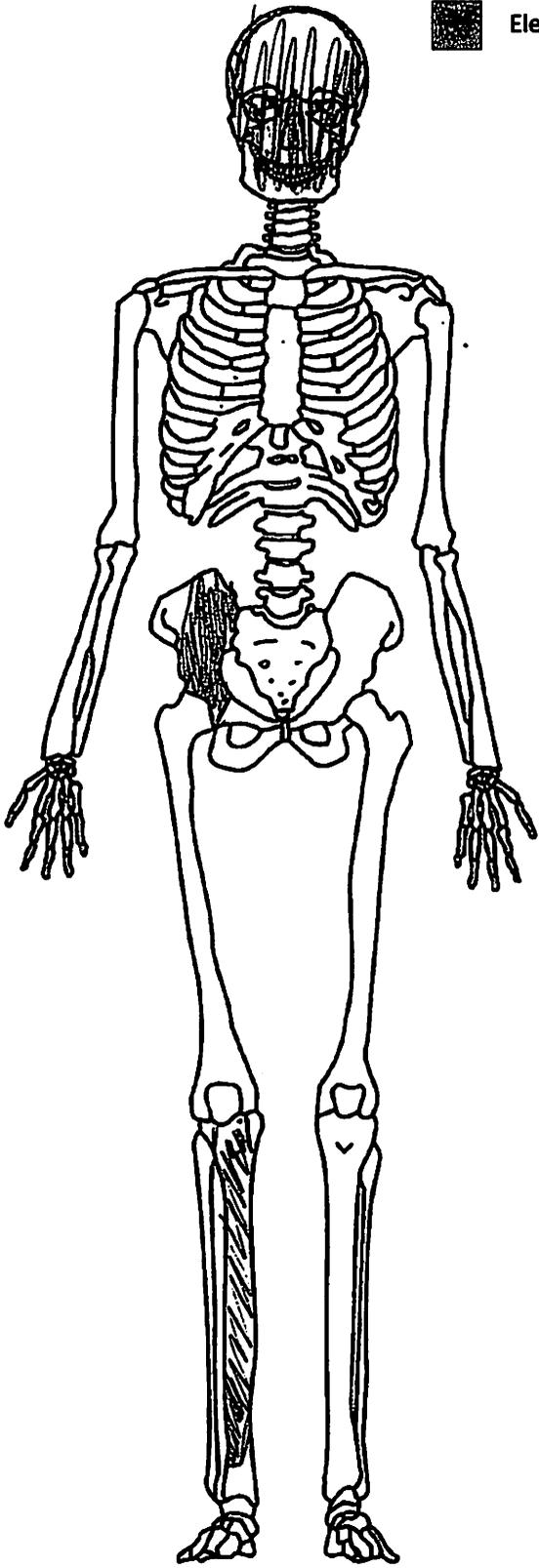
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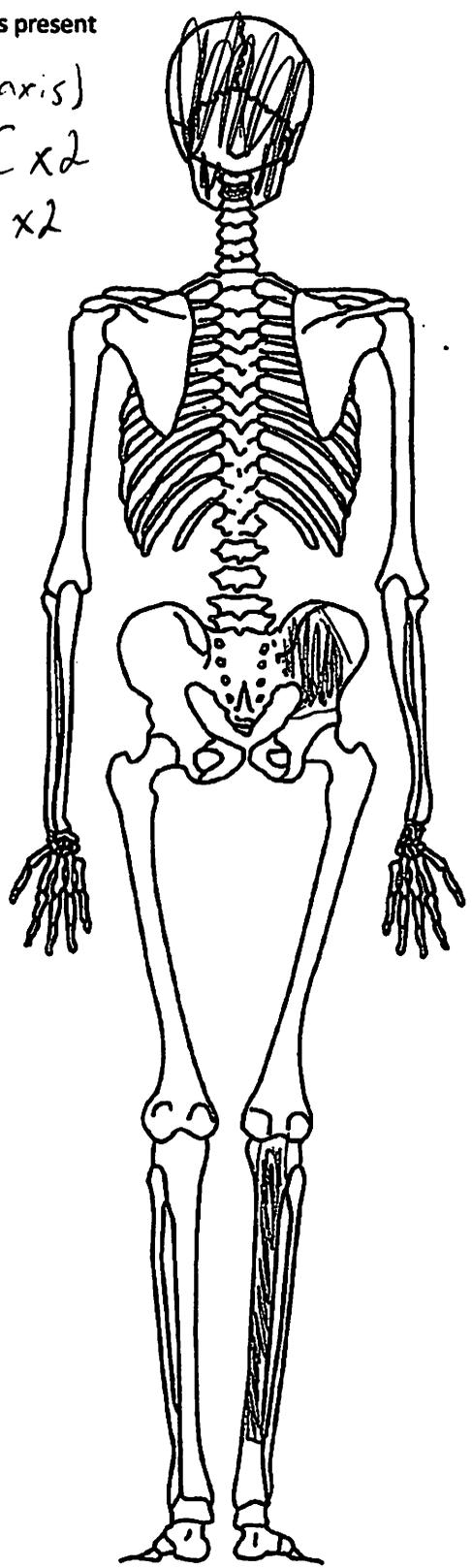
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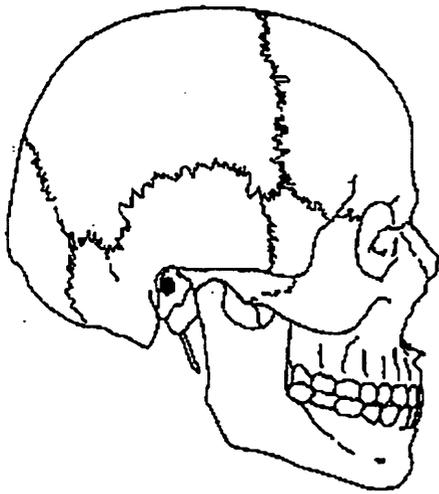
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Tx2

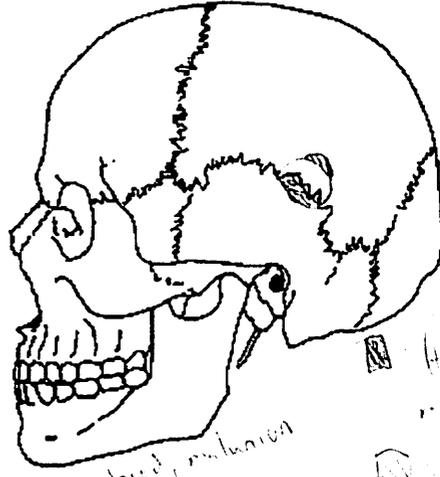


Case Number: 24-0212
Date: 3/4/24

Pinal County Medical Examiner's Office
920 N Bowling Rd. - Florence, AZ 85132 - (520) 866-7260

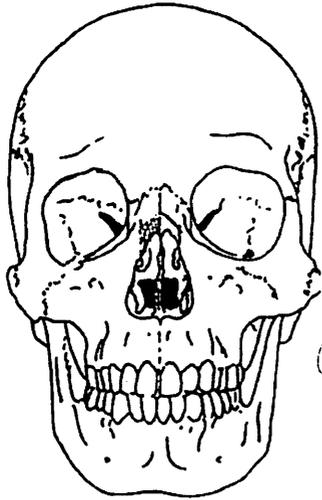


antemortem
fracture



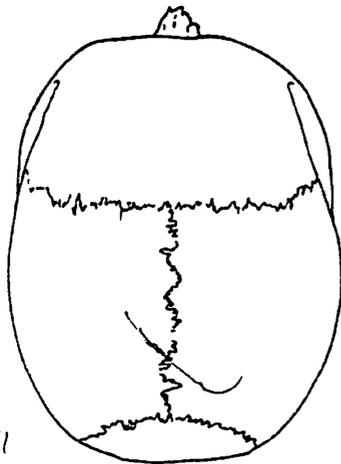
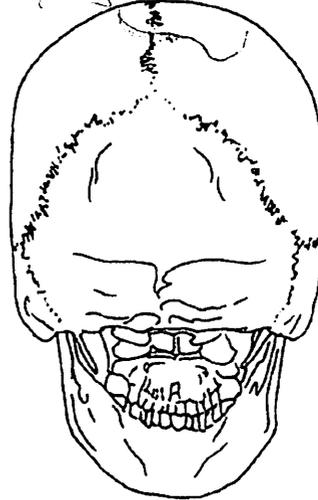
fracture of maxilla

5
[] (temporal)
missing
[] depressed



[] missing

L nasal
fracture
(maxilla)



displaced
fracture

