Click to verify

Share this article Copied! This page may contain affiliate links. If you choose to interact with or purchase from another business, we may receive payment. Learn more. Autopsies not only clarify the cause of death for families but can contribute to medical research and public health efforts. While they’re important to many families when the time comes, they’re not exactly a popular topic of discussion. This article aims to help clarify some frequently asked questions about autopsies, including the process, the time it takes to perform one, whether they’re necessary, and other important facets. Do autopsies always need to be performed? Before jumping into answering questions like, “how is an autopsy done or conducted?”, it can help to identify whether one needs to be done at all. It may surprise you to learn that autopsies are not always performed. They are typically conducted when there are unclear circumstances surrounding a death, such as suspected foul play, sudden or unexplained deaths, or when required by law for legal or public health reasons. Families may also request an autopsy to gain clarity about a loved one’s medical condition or cause of death. However, if the cause of death is clear and accepted, and there are no legal or medical reasons for an autopsy, it may not be performed. Families can sometimes choose to decline an autopsy, although this may limit the information available about the cause of death – though there are cases (such as criminal investigations) where they cannot decline. How does an autopsy work? An autopsy is a thorough examination of a deceased person's body to determine the cause of death, study a diseases, or gather evidence in cases of suspicious death. The process typically begins with a detailed external examination, where the body is inspected for visible injuries, marks, or abnormalities. This is followed by an internal examination, where a pathologist carefully makes incisions to examine internal organs such as the brain, heart, lungs, and others. Tissue samples may be taken for microscopic analysis, and bodily fluids like blood or urine are tested for toxicology. After the examination, the body is reconstructed for the funeral. The results are compiled in a report detailing the findings, which can help in understanding the cause of death. How is an autopsy performed? Autopsies may be performed in various orders depending on the situation and body, but it’s helpful to have a general outline of the steps taken when an autopsy is performed. Here’s a general overview: External examination: The body is visually inspected for any external signs of trauma, disease, or distinguishing marks (e.g., scars, tattoos). Documentation: Photographs and written notes are taken to record the body's condition and any findings. Weighing and measuring: The body is weighed, and measurements are taken of the body and individual organs. Internal examination: A Y-shaped incision is made on the torso, and the rib cage is opened to access the internal organs. Organ removal: Each organ is removed, weighed, and examined for signs of disease or injury. The brain may also be examined by removing the skull cap. Tissue sampling: Small samples of organs or tissues are taken for microscopic analysis. Toxicology testing: Blood, urine, or other fluids are tested for drugs, chemicals, or poisons. Reconstruction: After the examination, the organs are either returned to the body or kept for further analysis. The body is sewn up and prepared for the funeral. Report creation: A detailed report is prepared that outlines the findings, including the cause and manner of death. What happens during an autopsy? During an autopsy, a pathologist conducts a thorough examination of the body to determine the cause of death and identify any diseases or injuries. The process begins with an external examination where the body is inspected for visible marks, wounds, or abnormalities. Photographs and notes are taken to document the findings. The internal examination follows, involving a Y-shaped incision to open the body and access the internal organs, which are removed, weighed, and examined individually. Tissue samples are taken for microscopic analysis, and fluids such as blood or urine are tested for toxicology. After the examination, the body is reconstructed for a respectful appearance. The pathologist then compiles the findings into a detailed autopsy report. How long does it take to do an autopsy? “How long does an autopsy take?” is a common question. In movies, it can sometimes seem like autopsies take under an hour to determine the cause of death or solve the mystery, but in real life, it can be much longer. An autopsy typically takes between 2 to 4 hours, depending on the complexity of the case and the level of detail required. If additional tests such as toxicology or histology are needed, they may extend the time before the final results are available, often taking several weeks. However, the initial autopsy itself is usually completed within a few hours. How long after death can an autopsy be done? An autopsy is typically performed within 24 to 48 hours after death, though it can still be conducted days or even weeks later if necessary. The condition of the body plays a key role; decomposition can affect the quality of the examination, so earlier is generally better. In cases where the body is preserved, such as through refrigeration, an autopsy can be delayed for a longer period. How long does an autopsy delay a funeral? An autopsy usually delays a funeral by roughly 1 to 3 days, depending on how quickly it can be performed and if additional tests, like toxicology, are required. In most cases, the body is released to the family shortly after the autopsy is completed, allowing funeral arrangements to proceed. If more extensive investigation is needed, the delay could be longer. How long does an autopsy toxicology report take? An autopsy toxicology report typically takes 4 to 6 weeks to complete, though in some cases it may take longer depending on the complexity of the tests and the laboratory's workload. Toxicology testing involves analyzing blood, urine, or other bodily fluids for the presence of drugs, chemicals, or poisons, which requires detailed and time-consuming procedures. The final autopsy report is often delayed until the toxicology results are available. How long does it take to get an autopsy report? The timeframe for a family to receive an autopsy report can vary significantly, but it typically ranges from a few weeks to several months. After the autopsy is completed, the pathologist prepares a detailed report, which may include additional testing results, such as toxicology. Families are usually informed when the report is ready, but delays can occur due to the complexity of the case or the need for further analysis. Hopefully you’ve learned a little more about autopsies and the length of time they take, the steps they include, and the circumstances where ones are performed or aren’t. While questions like “how long does the autopsy take?” vary depending on the specific situation you’re in, having a baseline understanding of what to expect can be helpful. If you have any additional questions surrounding the autopsy process and timing, it’s a good idea to reach out to your coroner or medical examiner (or funeral home, if you aren’t sure who to contact) and request some additional information that’s tailored to your case. Want to see more articles like this? Like us on Facebook: Last updated October 16, 2024 An autopsy is a medical procedure in which a body is examined after death in order to determine the cause of death or other relevant information. The results of an autopsy are recorded in an autopsy report. This document includes details about the deceased’s physical condition, any pertinent medical history, and an overview of the findings from the examination. The completion of an autopsy report can provide closure for family members and help doctors make informed decisions about treatment for other patients. It can be difficult to determine exactly how long it takes to get an autopsy report. The timeline for completion depends on a variety of factors, including the complexity of the case and the availability of testing and laboratory services. Exploring the Length of Time for Autopsy Report Completion When preparing an autopsy report, a pathologist must first perform a comprehensive examination of the body. During this process, they will look for evidence of disease or trauma, take samples for laboratory analysis, and document their findings. The amount of time required to complete the examination depends on the complexity of the case and the availability of necessary tests and examinations. Once the examination is complete, the pathologist will write up the autopsy report. This document typically includes information about the deceased’s medical history, physical condition at the time of death, and results of the examination. The length of time it takes to write the report depends on the complexity of the case and the experience of the pathologist. An In-Depth Look at How Long an Autopsy Report Takes The length of time it takes to get an autopsy report depends on several factors. These include the complexity of the case, the availability of necessary tests and examinations, and the experience of the pathologist. Breaking down each step of the process can help provide a better understanding of how long it typically takes to receive an autopsy report. Breaking Down the Timeline for Autopsy Report Results The timeline for receiving an autopsy report begins with the completion of the examination. Depending on the complexity of the case, this stage can take anywhere from a few hours to several days. Once the examination is complete, the pathologist will write up the report. This process can take an additional day or two, depending on the experience of the pathologist. In some cases, additional tests or laboratory work may be necessary to confirm the findings of the examination. If this is the case, the timeline for receiving the autopsy report may be extended by several weeks. The exact length of time depends on the type of test being performed and the availability of the necessary resources. The Role of Necessary Tests and Examinations In some cases, additional tests or laboratory work may be required to confirm the findings of the examination. This can include toxicology tests, DNA testing, or specialized imaging studies. The availability of these tests and the timeline for receiving results can vary greatly, depending on the type of test being performed and the resources available. As such, the timeline for receiving an autopsy report can be extended significantly if additional tests are necessary. How Long Does It Take to Receive An Autopsy Report? The timeline for receiving an autopsy report depends on the complexity of the case and the availability of necessary tests and examinations. Generally speaking, it can take anywhere from a few days to several weeks to receive the results. The exact timeline can vary depending on the type of tests being performed and the resources available. Examining the Average Turnaround Time On average, it takes between five and seven days to receive an autopsy report. However, this timeline can be extended if additional tests or laboratory work is required. In such cases, it can take up to several weeks to receive the results. Analyzing Delays and Ways to Speed Up the Process There are a few steps you can take to ensure that the timeline for receiving an autopsy report is not delayed. First, contact the pathologist or medical examiner’s office to inquire about the status of the report. You should also ask if there are any additional tests or laboratory work that needs to be done in order to complete the report. Finally, if possible, try to arrange for any necessary tests or examinations to be done as quickly as possible. A Guide to Understanding How Long Autopsy Reports Take A Guide to Understanding How Long Autopsy Reports Take If you are waiting on an autopsy report, it can be difficult to know how long it will take to receive the results. The timeline for completion depends on the complexity of the case and the availability of necessary tests and examinations. On average, it takes between five and seven days to receive an autopsy report. However, this timeline can be extended if additional tests or laboratory work is required. Common Questions about Timelines When trying to understand how long it takes to receive an autopsy report, there are a few common questions. These include: How long will it take to receive the results? Will additional tests or laboratory work be required? What can I do to speed up the process? Knowing the answers to these questions can help you plan for the timeline for receiving the autopsy report. Tips for Navigating the System If you are waiting on an autopsy report, there are a few steps you can take to ensure that the timeline for receiving the results is not delayed. Contact the pathologist or medical examiner’s office to inquire about the status of the report. Also, ask if there are any additional tests or laboratory work that needs to be done in order to complete the report. Finally, if possible, try to arrange for any necessary tests or examinations to be done as quickly as possible. Conclusion An autopsy report can provide closure for family members and help doctors make informed decisions about treatment for other patients. The timeline for completing an autopsy report depends on the complexity of the case and the availability of necessary tests and examinations. On average, it takes between five and seven days to receive an autopsy report. However, this timeline can be extended if additional tests or laboratory work is required. Knowing the answers to common questions and taking steps to speed up the process can help ensure that the timeline for receiving the autopsy report is not delayed. (Note: Is this article not meeting your expectations? Do you have knowledge or insights to share? Unlock new opportunities and expand your reach by joining our authors team. Click Registration to join us and share your expertise with our readers.) Caroline Wendzel is a staff writer and second-year MPP student. More than 770,000 people in the United States are homeless. At the same time, Americans with housing… Read more “The Past, Present, and Future of the Housing Choice Voucher Program” Chase Karbon is a staff writer and first-year MPP student. California and Florida have recently experienced devastating natural disasters resulting in billions of dollars of damage and… Read more “Two States, Two Insurance Crises” Matias Bidegaray is a staff writer and first-year MPP student. In December of last year, former President Biden embarked on a trip to South America, where his administration… Read more “Losing Ground in Latin America and the Caribbean” Caroline Wendzel is a staff writer and second-year MPP student. Temporary Assistance for Needy Families (TANF)—or “welfare”—is one of the most well-known governmental programs aimed at reducing… Read more “TANF After 28 Years: 3 Possibilities for Reform” Azia Richardson-Williams is a staff writer and first-year MPA student. For many students, the summer between junior and senior year marks a pivotal moment—transforming dreams of higher… Read more “The Affirmative Action Aftermath: New Trends in College Admissions” Chase Karbon is a staff writer and first-year MPP student. Equity will be one of Washington Metropolitan Area Transit Authority’s (WMATA) focuses as it implements its Better… Read more “Equity and the D.C. Better Bus Initiative” Matias Bidegaray is a staff writer and first-year MPP student. President-elect Donald Trump has long promised mass deportations as a part of his immigration policy. In his 2016… Read more “The Costs of Mass Deportation” Patrick Carr is a former staff writer and alumnus of the Trachtenberg School. Last summer, The Lever interviewed Jenn Coffey, a former EMT and free-market Republican state legislator… Read more “Pillaging Public Health: The Reforms Standing Between Patients And Medicare” Sophia Alejandro is a staff writer and a first-year MPA student. As the education landscape changes, so do the means with which we teach students. From textbooks to… Read more “The Education Balancing Act: AI Progression, Fairness and Biases” Caroline Wendzel is a staff writer and a first-year MPP student. For decades, researchers have documented a strong connection between interpersonal violence and animal abuse. This connection, commonly… Read more “Following the Link: The Importance of Cross-Species Abuse Reporting” Share — copy and redistribute the material in any medium or format for any purpose, even commercially. Adapt — remix, transform, and build upon the material for any purpose, even commercially. The licensor cannot revoke these freedoms as long as you follow the license terms. Attribution — You must give appropriate credit , provide a link to the license, and indicate if changes were made . You may do so in any reasonable manner, but not in any way that suggests the licensor endorses you or your use. ShareAlike — If you remix, transform, or build upon the material, you must distribute your contributions under the same license as the original. No additional restrictions — You may not apply legal terms or technological measures that legally restrict others from doing anything the license permits. You do not have to comply with the license for elements of the material in the public domain or where your use is permitted by an applicable exception or limitation . No warranties are given. The license may not give you all of the permissions necessary for your intended use. For example, other rights such as publicity, privacy, or moral rights may limit how you use the material. The loss of a loved one is never easy, but it may be especially difficult when the circumstances of the death are unclear or mysterious. In situations where the cause of death may seem uncertain, or even in situations where there is suspicion, a full medical autopsy can provide clarity and peace of mind. Completing an autopsy takes time, as the coroner, medical examiner, or independent autopsy provider must perform a full physical evaluation. In some cases, toxicology and other reports may be required. As such, you should not expect the results of your autopsy immediately. As a rule of thumb, most autopsy reports will be delivered in writing within 90 days. In some jurisdictions, the coroner or examiner may call the next of kin before the report is finalized, providing an informal overview. In addition, there are a few factors that can affect the timeline for an autopsy report’s completion. First and foremost, keep in mind that coroners’ and medical examiners’ work requires precision and care. As such, a backlog of cases means that it may take a little time before your case can be completed. In some cases, a significant backlog or insufficient resources can extend the autopsy timeline past 90 days. The county coroner or medical examiner may also be restricted in which laboratories they can use to process the toxicology and histology samples required for the autopsy report completion. These laboratories can also experience backlog, further disrupting the timeline for the coroners and medical examiners. Private autopsy services generally aim to provide a final report within 90 days as well. However, private forensic pathologists often have lighter caseloads and more flexibility in choosing laboratories than the county coroner or medical examiner. As a result, a private autopsy is more easily able to maintain that 90-day timeline. In fact, independent pathologists may offer autopsy report services to coroners and medical examiners to help them meet their 90-day timeline. At Saguaro Forensic Consulting, we strive to promptly deliver final autopsy reports within that 90-day window. We are pleased to offer private autopsy services throughout Indiana and Illinois, always emphasizing prompt turnaround times and clear, accessible reports. Learn more about autopsy report completion. Losing a loved one is an emotionally challenging experience. In some cases, understanding the cause of death can provide much-needed closure. This is where an autopsy plays a critical role. An autopsy is a comprehensive medical examination of the body after death, conducted to determine the exact cause of death. It can uncover hidden medical conditions, confirm diagnoses, and offer answers to lingering questions. Whether it’s for legal reasons, medical clarity, or personal peace of mind, understanding the autopsy process can help families make informed decisions. This guide walks you through the key reasons for an autopsy, the steps to request one, legal considerations, costs, and how to interpret the results. Why an Autopsy Might Be Needed Autopsies serve multiple purposes, ranging from medical investigations to legal requirements: 1. Unclear Cause of Death: When the cause of death is uncertain, an autopsy helps determine what happened. This can provide families with closure and assist in legal investigations. 2. Medical Research and Diagnosis: Autopsies can reveal previously undiagnosed diseases, contributing valuable information for medical research and improving treatment options for future patients. 3. Legal and Forensic Reasons: In cases of suspicious, sudden, or unexplained deaths, the law may require an autopsy to rule out foul play. It becomes critical evidence in criminal investigations, insurance claims, and court cases. 4. Family Health Concerns: Autopsy findings can highlight hereditary conditions, allowing surviving family members to take preventive health measures. Legal Requirements for an Autopsy Not all autopsies are voluntary. Certain circumstances require an autopsy by law: When Ordered by the State: A medical examiner or coroner can mandate an autopsy in cases of homicide, suicide, accidental deaths, or deaths under suspicious circumstances. Without Family Consent: In legal cases, autopsies can be performed without family permission. Jurisdiction Matters: Legal requirements vary by state. Check local autopsy regulations for specific guidelines. If you disagree with a state-mandated autopsy, legal recourse is available through the courts. However, time is critical, as delays may affect the examination’s accuracy. Steps to Request an Autopsy If you wish to request an autopsy, follow these steps: 1. Contact the Medical Examiner or Coroner: Start by reaching out to the local medical examiner’s office. They will inform you if an autopsy is already required or guide you on how to proceed. 2. Obtain Family Consent: For voluntary autopsies, written consent from the next of kin is typically required. Ensure all family members are informed to avoid conflicts. 3. Consider Private Autopsy Services: If the state declines the request, or if you prefer a second opinion, contact a private service like 1-800-Autopsy for professional assistance. 4. Complete Necessary Documentation: Fill out consent forms, provide the deceased’s medical history, and specify any particular concerns you want investigated. 5. Understand the Costs: Public autopsies are usually free when legally required, but private autopsies can cost between $3,000 and $5,000 depending on the complexity of the case and tests involved. What to Expect During the Autopsy Process Understanding the procedure can ease anxiety: 1. External Examination: The body is examined for external injuries, marks, or signs of trauma. 2. Internal Examination: A Y-shaped incision is made to inspect internal organs. Each organ is carefully examined, weighed, and sometimes removed for further study. 3. Sample Collection: Tissue samples, fluids, and sometimes organs are sent for laboratory testing, including toxicology reports to detect drugs, alcohol, or poisons. 4. Specialized Testing: Depending on the case, additional tests like genetic studies, microbiology cultures, or histopathology may be performed. The autopsy generally takes 2-4 hours, but lab results can take several weeks. The body is handled with utmost care and returned to the family for funeral arrangements without visible signs of the procedure. Understanding the Results and Next Steps 1. Receiving the Autopsy Report: The full report, detailing findings and the cause of death, is typically available within 4-8 weeks. 2. Reviewing with a Medical Professional: It’s advisable to review the report with a physician to clarify medical terms and implications. 3. Legal and Insurance Implications: If the death involved legal issues or insurance claims, the report can serve as vital documentation. 4. Family Health Insights: Autopsy findings can alert surviving relatives to genetic conditions or health risks, encouraging preventive medical care. Religious and Cultural Considerations Autopsies can conflict with certain religious or cultural beliefs: Jewish and Islamic Traditions: These often oppose autopsies unless legally required. Alternative Options: Less invasive procedures, such as external examinations or virtual autopsies (CT scans), may be acceptable alternatives. Families concerned about religious customs should discuss options with both medical professionals and religious leaders. Frequently Asked Questions (FAQs) 1. How long after death can an autopsy be performed? Ideally within 24-48 hours, but autopsies can still be informative days later, especially with proper preservation. 2. Does an autopsy delay the funeral? Typically, it causes a 1-2 day delay. Coordination with funeral homes can minimize disruption. 3. Who pays for an autopsy? State-mandated autopsies are free. Private autopsies are paid for by the family or requesting party. 4. Can a family refuse an autopsy? Yes, for voluntary autopsies. However, legal cases may override family objections. Conclusion Requesting an autopsy is a personal decision that can provide clarity, closure, and peace of mind. Whether you’re seeking answers about a loved one’s passing, needing legal documentation, or looking for insights into hereditary health risks, an autopsy can be invaluable. For compassionate, professional assistance, contact 1-800-Autopsy. Our experienced team is here to support you through every step of the process, ensuring respectful handling and comprehensive answers during this difficult time. The loss of a loved one is never easy, but it may be especially difficult when the circumstances of the death are unclear or mysterious. In situations where the cause of death may seem uncertain, or even in situations where there is suspicion, a full medical autopsy can provide clarity and peace of mind. Completing an autopsy takes time, as the coroner, medical examiner, or independent autopsy provider must perform a full physical evaluation. In some cases, toxicology and other reports may be required. As such, you should not expect the results of your autopsy immediately. As a rule of thumb, most autopsy reports will be delivered in writing within 90 days. In some jurisdictions, the coroner or examiner may call the next of kin before the report is finalized, providing an informal overview. In addition, there are a few factors that can affect the timeline for an autopsy report’s completion. First and foremost, keep in mind that coroners’ and medical examiners’ work requires precision and care. As such, a backlog of cases means that it may take a little time before your case can be completed. In some cases, a significant backlog or insufficient resources can extend the autopsy timeline past 90 days. The county coroner or medical examiner may also be restricted in which laboratories they can use to process the toxicology and histology samples required for the autopsy report completion. These laboratories can also experience backlog, further disrupting the timeline for the coroners and medical examiners. Private autopsy services generally aim to provide a final report within 90 days as well. However, private forensic pathologists often have lighter caseloads and more flexibility in choosing laboratories than the county coroner or medical examiner. As a result, a private autopsy is more easily able to maintain that 90-day timeline. In fact, independent pathologists may offer autopsy report services to coroners and medical examiners to help them meet their 90-day timeline. At Saguaro Forensic Consulting, we strive to promptly deliver final autopsy reports within that 90-day window. We are pleased to offer private autopsy services throughout Indiana and Illinois, always emphasizing prompt turnaround times and clear, accessible reports. Learn more about autopsy report completion. The Acronyms section of this website is powered by the Acronym Finder, the web's most comprehensive dictionary of acronyms, abbreviations and initialisms. The Acronym Finder allows users to decipher acronyms from a database of over 1,000,000 entries covering computers, technology, telecommunications, and the military. Unlike online glossaries, search engines, encyclopedias, or thesauruses, Acronym Finder exists purely to unravel the bewildering range of acronyms that impact daily life. Here's what people are searching for right now in Acronyms & Abbreviations: Get the MedicineNet Daily newsletter for health tips, wellness updates and more. By clicking "Subscribe Now", I agree to the MedicineNet Terms and Conditions and Privacy Policy. I also agree to receive emails from MedicineNet and I understand that I may opt out of MedicineNet subscriptions at any time. When families request a private autopsy, they’re usually looking for answers regarding their loved one’s death that a medical examiner or coroner decided not to provide by performing a routine autopsy themselves. And, understandably, family members want those answers as soon as possible. After all, the information that an autopsy provides can allow grieving family members to heal and achieve the closure they need to continue on without their loved one with them. Depending on the circumstances of your loved one’s death, preliminary findings from a private autopsy may be available as soon as 24 hours after Dr. Chundru performed the procedure. But, other aspects of an autopsy – such as receiving toxicology reports and the final autopsy report – can take more time. You’re probably already aware that it takes an extended amount of time for families to receive the final autopsy report from a medical examiner or coroner – usually about six weeks. This fact is often publicized by the media if there is a high-profile homicide or suspicious death in your community. But why does it take so long to get a report from a typical autopsy? The answer lies largely in the backlog of the lab which processes autopsy samples, such as toxicology and histology samples, from the procedure. Because city, county, and state coroners and medical examiners usually contract with one or just a few labs to process their autopsy samplings, receiving final results can take a while when the lab has a high number of samples to perform. This is especially true if you live in a highly populated metropolitan area. Receive Private Autopsy Reports Faster When Working with Dr. Chundru When Dr. Chundru performs a private autopsy for his clients, he has more options in terms of choosing a lab to process the autopsy samples than a city, county, or state coroner or medical examiner typically does. Depending on your location, this may translate into Dr. Chundru’s selected lab being able to process all samples faster than a jurisdiction’s lab can. Ultimately, this may provide you with a final autopsy report and the answers you desperately want faster than the average 6-week turnaround time. Learning More About the Differences Between a Traditional and Private Autopsy If you’ve been told that your local medical examiner or coroner isn’t going to perform an autopsy on your loved one, but you want the answers that one provides, Dr. Chundru is available to conduct a private autopsy anywhere in the United States. Typically performed in your chosen funeral home, this procedure takes about one and a half to two hours to complete, and won’t interfere with your ability to have an open casket or viewing for your family member’s funeral services. To talk to Dr. Chundru to learn more about private autopsies and how they differ from one conducted by a local jurisdiction, schedule a consultation with him today. MeSH Heading Autopsy Tree Number(s) E01.370.060 E05.070 I01.198.780.937.120 Unique IDD001344 RDF Unique Identifier Annotationno qualifiers when NIM; not a routine coordinate for postmortem pathology (= /pathol): discussion must be on autopsy as a procedure Scope NotePostmortem examination of the body. Entry Term(s) Autopsies Post-Mortem Examination Postmortem Examination Date Established 1966/01/01 Date of Entry 1999/01/01 Revision Date 2011/06/24 Diagnosis [E01] Diagnostic Techniques and Procedures [E01.370] Age Determination by Skeleton [E01.370.049] Autopsy [E01.370.060] Postmortem Imaging [E01.370.060.500] Breath Tests [E01.370.100] Clinical Laboratory Techniques [E01.370.225] Diagnostic Imaging [E01.370.350] Diagnostic Self Evaluation [E01.370.360] Diagnostic Techniques, Cardiovascular [E01.370.370] Diagnostic Techniques, Digestive System [E01.370.372] Diagnostic Techniques, Endocrine [E01.370.374] Diagnostic Techniques, Neurological [E01.370.376] Diagnostic Techniques, Obstetrical and Gynecological [E01.370.378] Diagnostic Techniques, Ophthalmological [E01.370.380] Diagnostic Techniques, Otological [E01.370.382] Diagnostic Techniques, Radioisotope [E01.370.384] Diagnostic Techniques, Respiratory System [E01.370.386] Diagnostic Techniques, Surgical [E01.370.388] Diagnostic Techniques, Urological [E01.370.390] Diagnostic Tests, Routine [E01.370.395] Direct-To-Consumer Screening and Testing [E01.370.398] Disability Evaluation [E01.370.400] Electrodiagnosis [E01.370.405] Insufflation [E01.370.450] Kymography [E01.370.475] Mass Screening [E01.370.500] Traditional Pulse Diagnosis [E01.370.503] Surgical Clearance [E01.370.505] Medical History Taking [E01.370.510] Monitoring, Physiologic [E01.370.520] Myography [E01.370.530] Photoacoustic Techniques [E01.370.565] Physical Examination [E01.370.600] Premarital Examinations [E01.370.620] Psychophysics [E01.370.685] Speech Production Measurement [E01.370.760] Symptom Assessment [E01.370.872] Visual Analog Scale [E01.370.928] Xenodiagnosis [E01.370.985] Investigative Techniques [E05] Accelerometry [E05.003] Airway Extubation [E05.008] Animal Experimentation [E05.017] Animal Identification Systems [E05.035] Anthropometry [E05.041] Artifacts [E05.047] Autoanalysis [E05.059] Automation, Laboratory [E05.064] Autopsy [E05.070] Postmortem Imaging [E05.070.500] Biological Assay [E05.091] Biomedical Enhancement [E05.104] Bioprinting [E05.111] Bioprospecting [E05.114] Bone Demineralization Technique [E05.118] Catheterization [E05.157] Cementation [E05.170] Centrifugation [E05.181] Chemistry Techniques, Analytical [E05.196] Chemistry Techniques, Synthetic [E05.197] Chromophore-Assisted Light Inactivation [E05.198] Clinical Laboratory Techniques [E05.200] Constriction [E05.225] Containment of Biohazards [E05.235] Cytological Techniques [E05.242] Decision Support Techniques [E05.245] Dilatation [E05.284] Drug Development [E05.290] Ecological Parameter Monitoring [E05.298] Electrochemical Techniques [E05.301] Embryo Research [E05.313] Endpoint Determination [E05.315] Epidemiologic Methods [E05.318] Equipment Design [E05.320] Equipment Failure [E05.325] Equipment Reuse [E05.328] Equipment Safety [E05.330] Ergometry [E05.333] Euthanasia, Animal [E05.335] Evaluation Studies as Topic [E05.337] Fetal Research [E05.349] Finite Element Analysis [E05.355] Food Analysis [E05.362] Fourier Analysis [E05.377] Games, Experimental [E05.385] Genetic Techniques [E05.393] Human Experimentation [E05.445] Immersion [E05.466] Immobilization [E05.472] Immunologic Techniques [E05.478] In Vitro Techniques [E05.481] Indicator Dilution Techniques [E05.484] Interferometry [E05.490] Intubation [E05.497] Ischemic Preconditioning [E05.516] Isolated Heart Preparation [E05.519] Isotope Labeling [E05.522] Magnetometry [E05.540] Manometry [E05.559] Materials Testing [E05.570] Methods [E05.581] Microchip Analytical Procedures [E05.588] Micromanipulation [E05.591] Microscopy [E05.595] Models, Animal [E05.598] Models, Theoretical [E05.599] Molecular Probe Techniques [E05.601] Motion Capture [E05.613] Neoplasm Transplantation [E05.624] Neuroimaging [E05.629] Neuromuscular Blockade [E05.635] Olfactometry [E05.638] Optical Imaging [E05.642] Optical Tweezers [E05.650] Oscillometry [E05.654] Oxygen Radical Absorbance Capacity [E05.657] Parabiosis [E05.660] Perfusion [E05.680] Photoacoustic Techniques [E05.696] Photography [E05.712] Physical Stimulation [E05.723] Physiognomy [E05.734] Preservation, Biological [E05.760] Psychological Techniques [E05.796] Radiometry [E05.799] Reproductive Techniques [E05.820] Rheology [E05.830] Sonication [E05.848] Sound Spectrography [E05.855] Stereotaxic Techniques [E05.873] Substance Abuse Detection [E05.885] Technology, Pharmaceutical [E05.916] Technology, Radiologic [E05.920] Telemetry [E05.925] Therapeutic Irrigation [E05.927] Thermometry [E05.933] Toxicity Tests [E05.940] Trauma Severity Indices [E05.944] Vaccine Development [E05.952] Video-Assisted Techniques and Procedures [E05.956] Wavelet Analysis [E05.959] Weightlessness Countermeasures [E05.974] Weightlessness Simulation [E05.977] Weights and Measures [E05.978] Whole Body Imaging [E05.979] Whole-Body Irradiation [E05.980] Autopsy Preferred Concept UIM0002017 Scope NotePostmortem examination of the body. Terms Autopsy Preferred Term Term UI T003950 Date01/01/1999 LexicalTag NON ThesaurusID NLM (1994) Autopsies Term UI T003949 Date03/17/1977 LexicalTag NON ThesaurusID BIOETHICS (1989) Post-Mortem Examination Term UI T785884 Date02/18/2011 LexicalTag NON ThesaurusID NLM (2012) Postmortem Examination Term UI T785885 Date02/18/2011 LexicalTag NON ThesaurusID NLM (2012) Share this article Copied! This page may contain affiliate links. If you choose to interact with or purchase from another business, we may receive payment. Learn more. You’ve likely heard of autopsy reports through various types of media. They’re medical documents that provide critical information about the cause and manner of a death. For cases where deaths were mysterious in some way, unexpected, or confusing, these reports can be invaluable. If you’re looking for information and guidance on how to find autopsy reports, sample autopsy reports, and information about costs, continue reading. Before jumping into questions like “How much is an autopsy?” or “How can I get an autopsy report?” it's helpful to understand a few key points about autopsy reports. Autopsy reports are considered public records, barring a few exceptions. This means that anyone can get access to an autopsy report or results for an autopsy, so long as they have some pertinent details (and so long as the autopsy report is not exempted from public records). Autopsy records may be exempt from public records if they are: Part of an ongoing criminal investigation Involve privacy concerns related to the deceased or their family Restricted by state or local laws due to sensitive details Released only to next of kin, law enforcement, or legal representatives High-profile cases or deaths involving minors Following are some frequently asked questions about autopsy reports. How do I get or obtain an autopsy report? How do you get an autopsy report? The answer is relatively simple. To obtain an autopsy report, follow these steps: Contact the medical examiner or coroner’s office: Reach out to the office that performed the autopsy, usually in the county where the death occurred.You can find out who did the autopsy by contacting the medical examiner or coroner’s office. If you aren’t sure where that office is, contacting your local police department or the funeral home can help. Submit a request: Depending on the jurisdiction, you may need to fill out a formal request form, provide identification, or show proof of your relationship to the deceased. Pay any fees: Some offices may charge a fee for providing copies of the report. Wait for processing: It may take several weeks to months for the report to be available, especially if toxicology or additional testing was performed. How long after death can an autopsy be done? An autopsy is typically performed within 72 hours of a death, which is when the body is most intact for examination. However, in some cases, an autopsy may be conducted after this time frame, depending on the condition of the body and whether it has been preserved, such as through refrigeration. Delays may affect the findings, especially in cases where decomposition has set in, but forensic pathologists can still gather valuable information beyond the first few days after death. How long does an autopsy report take to complete? How long does it take to get autopsy results? An autopsy report can take anywhere from a few weeks to several months to complete, depending on the complexity of the case. Simple cases may result in a preliminary report within a few days, but more detailed analyses, such as toxicology or tissue studies, can extend the process. On average, it takes 4 to 12 weeks for a full autopsy report to be finalized, longer if further investigations or laboratory results are needed. How long does an autopsy toxicology report take? An autopsy toxicology report typically takes several weeks to complete, with the average time ranging from 4 to 8 weeks. The process involves analyzing bodily fluids such as blood, urine, and tissue samples to detect the presence of drugs, alcohol, poisons, or other toxic substances. Depending on the complexity of the tests required and the backlog at the laboratory, it can sometimes take longer, especially in cases where multiple substances or rare toxins are being tested. The toxicology results are crucial for determining causes of death related to poisoning, overdose, or substance interactions. How long does it take to do an autopsy? A common question asked is “How long does the autopsy take?” If you’re told an autopsy needs to be done, or you’ve requested one be done, this is helpful to know. An autopsy typically takes 2 to 4 hours to complete, depending on the complexity of the case and the type of examination required. For routine cases with no extensive complications, the process can be quicker. However, more detailed autopsies involving specialized tests, such as toxicology, microscopic examination, or tissue analysis, may take longer. The thoroughness of the autopsy also varies based on the need to examine specific organs or gather evidence for legal or forensic purposes. Despite the procedure itself being relatively short, further analysis and results can extend the time it takes to finalize the findings. How can you get an autopsy report done after someone’s been buried? To get an autopsy done after someone has been buried, you would need to request an exhumation, which is the process of digging up a buried body for examination. Here are the key steps involved: Legal permission: Exhumation requires legal authorization, which typically involves obtaining a court order. The request may need to come from the next of kin, law enforcement, or a legal representative, depending on the reason for the autopsy. Reason for exhumation: You must provide a valid reason, such as suspicion of foul play, unresolved questions about the cause of death, or for legal purposes like insurance claims. Authorities reasoning: Coordinate with the local health department, law enforcement, and the medical examiner’s office to handle the exhumation and autopsy. Costs and time: Be aware that exhumation can be expensive and time-consuming, as it involves court proceedings, specialized handling, and the reburial process. How long does it take for an autopsy to become public record? The time it takes for an autopsy to become a public record varies depending on the jurisdiction and the circumstances surrounding the death. Typically, once the autopsy is complete and the final report is filed—usually within 4 to 12 weeks—it may be available as a public record, if it’s not restricted by law. However, if the case is part of an ongoing investigation or involves sensitive information, the report may be withheld from public access until the investigation is closed or legal proceedings are completed, which can take several months or even years. Receiving autopsy results can take anywhere from a few weeks to several months, depending on the complexity of the case and any additional testing required. Preliminary findings may be available within a few days, but the final results, including toxicology or microscopic analysis, often take longer. On average, it takes 4 to 12 weeks to receive the complete autopsy report, especially if the death involves unusual circumstances, forensic investigation, or specialized laboratory work. Delays can also occur if the medical examiner's office is handling a high volume of cases. How much does it cost to do an autopsy? How much does it cost for an autopsy? The cost of an autopsy can vary widely depending on several factors, such as the location, the type of autopsy, and whether it is a private or government-ordered procedure. If ordered by a medical examiner or coroner in cases of suspicious or unexplained deaths, the autopsy is typically covered by the state or county, meaning there is no cost to the family. However, a private autopsy, requested by the family for personal or legal reasons, can range from $3,000 to $5,000 or more, depending on the complexity of the case and any specialized testing, such as toxicology or tissue analysis. Autopsy report example If you’ve never seen an autopsy report before – you can view a real one below. This autopsy report was completed for a man named Christopher Wallace. Not all autopsy reports are the same, but it can help to know what they look like and what to expect. Source: Wikemedia Now that some of your questions have been answered, (such as “How long do autopsy results take? How long does an autopsy take? How can I find autopsy results?”) you can feel better informed and prepared when dealing with the coroner’s office or medical examiner. Want to see more articles like this? Like us on Facebook: Last updated October 14, 2024 health centersinfectious disease center An autopsy (post-mortem exam or necropsy) is the examination of the body of a dead person and is performed primarily to determine the cause of death. An autopsy (also known as a postmortem examination or necropsy) is the examination of the body of a dead person and is performed primarily to determine the cause of death, to identify or characterize the extent of disease states that the person may have had, or to determine whether a particular medical or surgical treatment has been effective. Autopsies are performed by pathologists (medical doctors who have received specialty training in the diagnosis of diseases by the examination of body fluids and tissues). In academic institutions, autopsies sometimes are also requested for teaching and research purposes. Forensic autopsies have legal implications and are performed to determine if death was an accident, homicide, suicide, or a natural event. The word autopsy is derived from the Greek word autopsia: "to see with one's own eyes." The earliest anatomists and pathologists could be considered ancient hunters, butchers, and cooks who had to recognize organs and determine if they were suitably edible. In ancient Babylon, perhaps as early as 3500 BC, autopsies on animals were performed not for the study of disease, but rather for the practice of predicting the future by communicating with divine forces. The intestines and liver were believed to contain messages from divine spirits. Galen (131-200 A.D.), a disciple of Hippocrates practicing in ancient Greece, performed surgical dismantling (dissection) of animals and humans. He determined that Hippocrates' theory that disease was due to four circulating senses of humor (phlegm, blood, yellow bile, and black bile) was correct. Galen was a highly respected, powerful, and dogmatic individual who dominated the medical thinking of his time and for hundreds of years to follow. It is said that the four-humor doctrine paralyzed medical science for about 1400 years. In general, before 1700 there was a negative attitude regarding the dissection of the human body. Egyptians, Greeks, Romans, and medieval Europeans performed dissections for religious reasons or to learn anatomy, but this was not done in any systematic fashion. There were, however, some notable exceptions. In the late 1200s, the law faculty dominated the University of Bologna and would order autopsies to be performed to help solve legal problems. Thus, some of the earliest autopsies were medicolegal cases. In the late 1400s in Padua and Bologna, Italy, the sites of the world's first medical schools, Pope Sixtus the IV issued an edict permitting dissection of the human body by medical

determine the cause of death through a thorough examination of relevant organs and tissues. Is the brain removed during autopsy? During an autopsy, the brain is typically removed and examined as part of the procedure. If necessary, the brain can be preserved in a formalin solution for future analysis. This allows pathologists to thoroughly inspect the brain for any abnormalities, such as signs of injury, disease, or other conditions that may have contributed to the individual's death. The brain can provide valuable insights into the cause of death and any underlying health issues the deceased may have had. Medically Reviewed on 5/20/2024 Autopsy 101. Medscape. Philadelphia College of Osteopathic Medicine. "What is an autopsy? A forensic pathologist explains." Published March 16, 2023. Accessed May 7, 2024. . Stoppler MC. "Autopsy." eMedicineHealth. Accessed May 8, 2024. . Cleveland Clinic. "Forensic Pathologist." Accessed May 8, 2024. . Smith M. "Autopsies: When Are They Done?" WebMD. Accessed May 8, 2024. . Johns Hopkins Medicine. "Autopsy." Accessed May 8, 2024. . Better Health Channel. "Autopsy." Accessed May 8, 2024. . Conran RM. "Medicolegal issues and the autopsy." Accessed May 8, 2024. . Charan Gowda BK, Mohan CV, Hemavathi. "Oral autopsy: A simple, faster procedure for total visualization of oral cavity." J Forensic Dent Sci. 2016;8(2):103-107. doi:10.4103/0975-1475.186375. Biorepositories and Biospecimen Research Branch – National Cancer Institute. "Brain Autopsy Normal Tissue Collection." Accessed May 7, 2024. 20Brain%20Autopsy%20Normal%20Tissue%20Collection.pdf. Medical examination of a corpse "Post-mortem" redirects here. For other uses, see Post-mortem (disambiguation). This article is about the medical procedure. For other uses, see Autopsy (disambiguation). Medical intervention AutopsyThe Anatomy Lesson of Dr. Nicolaes Tulp, (1632) by Rembrandt, depicts an autopsy.[citation needed]SpecialtyForensic pathologyICD-9-CM89.8MeSHD001344[edit on Wikidata] An autopsy (also referred to as post-mortem examination, obduction, necropsy,[Note 1] or autopsia cadaverum) is a surgical procedure that consists of a thorough examination of a corpse by dissection to determine the cause, mode, and manner of death; or the exam may be performed to evaluate any disease or injury that may be present for research or educational purposes. The term necropsy is generally used for non-human animals. Autopsies are usually performed by a specialized medical doctor called a pathologist. Only a small portion of deaths require an autopsy to be performed, under certain circumstances. In most cases, a medical examiner or coroner can determine the cause of death. Autopsies are performed for either legal or medical purposes. Autopsies can be performed when any of the following information is desired: Manner of death must be determined Determine if death was natural or unnatural Injury source and extent on the corpse Post mortem interval Determining the deceased's identity Retain relevant organs If it is an infant, determine live birth and viability For example, a forensic autopsy is carried out when the cause of death may be a criminal matter, while a clinical or academic autopsy is performed to find the medical cause of death and is used in cases of unknown or uncertain death, or for research purposes. Autopsies can be further classified into cases where an external examination suffices, and those where the body is dissected and an internal examination is conducted. Permission from next of kin may be required for internal autopsy in some cases. Once an internal autopsy is complete, the body is reconstituted by sewing it back together. The term "autopsy" derives from the Ancient Greek αὐτοψία autopsia, "to see for oneself", derived from αὐτός (autos, "oneself") and ὄψις (opsis, "sight, view").[1] The word has been in use since around the 17th century.[2] The term "post-mortem" derives from the Latin post, 'after', and mortem, 'death'. It was first recorded in 1734.[3] The term "necropsy" is derived from the Greek νεκρός (nekrós, "dead") and ὄψις (opsis, 'sight, view').[4] [5] The principal aims of an autopsy are to determine the cause of death, mode of death, manner of death, the state of health of the person before he or she died, and whether any medical diagnosis and treatment before death were appropriate.[6] In most Western countries the number of autopsies performed in hospitals has been decreasing every year since 1955. Critics, including pathologist and former JAMA editor George D. Lundberg, have charged that the reduction in autopsies is negatively affecting the care delivered in hospitals, because when mistakes result in death, they are often not investigated and lessons, therefore, remain unlearned. When a person has permitted an autopsy in advance of their death, autopsies may also be carried out for the purposes of teaching or medical research. An autopsy is usually performed in cases of sudden death, where a doctor is not able to write a death certificate, or when death is believed to result from an unnatural cause. These examinations are performed under a legal authority (medical examiner, coroner, or procurator fiscal) and do not require the consent of relatives of the deceased. The most extreme example is the examination of murder victims, especially when medical examiners are looking for signs of death or the murder method, such as bullet wounds and exit points, signs of strangulation, or traces of poison. Some religions including Judaism and Islam usually discourage the performing of autopsies on their adherents.[7] Organizations such as ZAKA in Israel and Misaskim in the United States generally guide families on how to ensure that an unnecessary autopsy is not made. Autopsies are used in clinical medicine to identify a medical error or a previously unnoticed condition that may endanger the living, such as infectious diseases or exposure to hazardous materials.[8] A study that focused on myocardial infarction (heart attack) as a cause of death found significant errors of omission and commission,[9] i.e. a sizable number of cases ascribed to myocardial infarctions (MIs) were not MIs and a significant number of non-MIs were MIs. A systematic review of studies of the autopsy calculated that in about 25% of autopsies, a major diagnostic error will be revealed.[10] However, this rate has decreased over time and the study projects that in a contemporary US institution, 8.4% to 24.4% of autopsies will detect major diagnostic errors. A large meta-analysis suggested that approximately one-third of death certificates are incorrect and that half of the autopsies performed produced findings that were not suspected before the person died.[11] Also, it is thought that over one-fifth of unexpected findings can only be diagnosed histologically, i.e., by biopsy or autopsy, and that approximately one-quarter of unexpected findings, or 5% of all findings, are major and can similarly only be diagnosed from tissue. One study found that (out of 694 diagnoses) "Autopsies revealed 171 missed diagnoses, including 21 cancers, 12 strokes, 11 myocardial infarctions, 10 pulmonary emboli, and 9 endocarditis, among others".[12] Focusing on intubated patients, one study found "abdominal pathologic conditions – abscesses, bowel perforations, or infarction – were as frequent as pulmonary emboli as a cause of class I errors. While patients with abdominal pathologic conditions generally complained of abdominal pain, results of an examination of the abdomen were considered unremarkable in most patients, and the symptom was not pursued".[13] Dissection room at the University of Helsinki in Finland in 1928 There are four main types of autopsy:[14] Medico-legal or forensic or coroner's autopsies seek to find the cause and manner of death and to identify the decedent.[14] They are generally performed, as prescribed by applicable law, in cases of violent, suspicious or sudden deaths, deaths without medical assistance, or during surgical procedures.[14] Clinical or pathological autopsies are performed to diagnose a particular disease or for research purposes. They aim to determine, clarify, or confirm medical diagnoses that remained unknown or unclear before the patient's death.[14] Anatomical or academic autopsies are performed by students of anatomy for study purposes only. Virtual or medical imaging autopsies are performed utilizing imaging technology only, primarily magnetic resonance imaging (MRI) and computed tomography (CT).[15] Autopsy room of the Charité Berlin, Germany, 2010 A forensic autopsy is used to determine the cause, mode, and manner of death. Forensic science involves the application of the sciences to answer questions of interest to the legal system. Medical examiners attempt to determine the time of death, the exact cause of death, and what, if anything, preceded the death, such as a struggle. A forensic autopsy may include obtaining biological specimens from the deceased for toxicological testing, including stomach contents. Toxicology tests may reveal the presence of one or more chemical "poisons" (all chemicals, in sufficient quantities, can be classified as a poison) and their quantity. Because post-mortem deterioration of the body, together with the gravitational pooling of bodily fluids, will necessarily alter the bodily environment, toxicology tests may overestimate, rather than underestimate, the quantity of the suspected chemical.[16] Following an in-depth examination of all the evidence, a medical examiner or coroner will assign a manner of death from the choices proscribed by the fact-finder's jurisdiction and will detail the evidence on the mechanism of the death. Pathologist performing a human dissection of the abdominal and thoracic organs in an autopsy room Clinical autopsies serve two major purposes. They are performed to gain more insight into pathological processes and determine what factors contributed to a patient's death. For example, material for infectious disease testing can be collected during an autopsy.[17] Autopsies are also performed to ensure the standard of care at hospitals. Autopsies can yield insight into how patient deaths can be prevented in the future. Within the United Kingdom, clinical autopsies can be carried out only with the consent of the family of the deceased person, as opposed to a medico-legal autopsy instructed by a Coroner (England & Wales) or Procurator Fiscal (Scotland), to which the family cannot object.[18] Over time, autopsies have not only been able to determine the cause of death, but have also led to discoveries of various diseases such as fetal alcohol syndrome, Legionnaire's disease, and even viral hepatitis. Academic autopsies are performed by students of anatomy for the purpose of study, giving medical students and residents firsthand experience viewing anatomy and pathology. Postmortem examinations require the skill to connect anatomic and clinical pathology together since they involve organ systems and interruptions from ante-mortem and post-mortem. These academic autopsies allow for students to practice and develop skills in pathology and become meticulous in later case examinations.[19] Virtual autopsies are performed using radiographic techniques which can be used in post-mortem examinations for a deceased individual.[20] It is an alternative to medical autopsies, where radiographs are used, for example, Magnetic resonance imaging (MRI) and Computed tomography (CT scan) which produce radiographic images in order to determine the cause of death, the nature, and the manner of death, without dissecting the deceased. It can also be used in the identification of the deceased.[21] This method is helpful in determining the questions pertaining to an autopsy without putting the examiner at risk of biohazardous materials that can be in an individual's body. In 2004 in England and Wales, there were 514,000 deaths, of which 225,500 were referred to the coroner. Of those, 115,800 (22.5% of all deaths) resulted in post-mortem examinations and there were 28,300 inquests, 570 with a jury.[22] The rate of consented (hospital) autopsy in the UK and worldwide has declined rapidly over the past 50 years. In the UK in 2013, only 0.7% of inpatient adult deaths were followed by consented autopsy.[23] The autopsy rate in Germany is below 5% and thus much lower than in other countries in Europe. The governmental reimbursement is hardly sufficient to cover all the costs, so the medical journal Deutsches Ärzteblatt, issued by the German Medical Association, makes the effort to raise awareness regarding the underfinancing of autopsies. The same sources stated that autopsy rates in Sweden and Finland reach 20 to 30%.[24] In the United States, autopsy rates fell from 17% in 1980 to 14% in 1985[25] and 11.5% in 1989,[26] although the figures vary notably from county to county.[27] Cadaver dissection tables are similar to those used in medical or forensic autopsies. The body is received at a medical examiner's office, municipal mortuary, or hospital in a body bag or evidence sheet. A new body bag is used for each body to ensure that only evidence from that body is contained within the bag. Evidence sheets are an alternative way to transport the body. An evidence sheet is a sterile sheet that covers the body when it is moved. If it is believed there may be any significant evidence on the hands, for example, gunshot residue or skin under the fingernails, a separate paper sack is put around each hand and taped shut around the wrist. There are two parts to the physical examination of the body: the external and internal examination. Toxicology, biochemical tests or genetic testing/molecular autopsy often supplement these and frequently assist the pathologist in assigning the cause or causes of death. At many institutions, the person responsible for handling, cleaning, and moving the body is called a diener, the German word for servant. In the UK this role is performed by an Anatomical Pathology Technician (APT), who will also assist the pathologist in eviscerating the body and reconstruction after the autopsy. After the body is received, it is first photographed. The examiner then notes the kind of clothes – if any – and their position on the body before they are removed. Next, any evidence such as residue, flakes of paint, or other material is collected from the external surfaces of the body. Ultraviolet light may also be used to search body surfaces for any evidence not easily visible to the naked eye. Samples of hair, nails, and the like are taken, and the body may also be radiographically imaged. Once the external evidence is collected, the body is removed from the bag, undressed, and any wounds present are examined. The body is then cleaned, weighed, and measured in preparation for the internal examination. A general description of the body as regards ethnic group, sex, age, hair colour and length, eye colour, and other distinguishing features (birthmarks, old scar tissue, moles, tattoos, etc.) is then made. A voice recorder or a standard examination form is normally used to record this information. In some countries,[28][29] e.g., Scotland, France, Germany, Russia, and Canada, an autopsy may comprise an external examination only. This concept is sometimes termed a "view and grant". The principle behind this is that the medical records, history of the deceased and circumstances of death have all indicated as to the cause and manner of death without the need for an internal examination.[30] If not already in place, a plastic or rubber brick called a "head block" is placed under the shoulders of the corpse; hyperflexion of the neck makes the spine arch backward while stretching and pushing the chest upward to make it easier to incise. This gives the APT, or pathologist, maximum exposure to the trunk. After this is done, the internal examination begins. The internal examination consists of inspecting the internal organs of the body by dissection for evidence of trauma or other indications of the cause of death. For the internal examination there are a number of different approaches available: a large and deep Y-shaped incision can be made starting at the top of each shoulder and running down the front of the chest, meeting at the lower point of the sternum (breastbone). a curved incision made from the tips of each shoulder, in a semi-circular line across the chest/decolletage, to approximately the level of the second rib, curving back up to the opposite shoulder. a single vertical incision is made from the sternal notch at the base of the neck. a U-shaped incision is made at the tip of both shoulders, down along the side of the chest to the bottom of the rib cage, following it. This is typically used on women and during chest-only autopsies. There is no need for any incision to be made, which will be visible after completion of the examination when the deceased is dressed in a shroud. In all of the above cases, the incision then extends all the way down to the pubic bone (making a deviation to either side of the navel) and avoiding, where possible, transecting any scars that may be present. Bleeding from the cuts is minimal, or non-existent because the pull of gravity is producing the only blood pressure at this point, related directly to the complete lack of cardiac functionality. However, in certain cases, there is anecdotal evidence that bleeding can be quite profuse, especially in cases of drowning. At this point, shears are used to open the chest cavity. The examiner uses the tool to cut through the ribs on the costal cartilage, to allow the sternum to be removed; this is done so that the heart and lungs can be seen in situ and that the heart – in particular, the pericardial sac – is not damaged or disturbed from opening. A PM 40 knife is used to remove the sternum from the soft tissue that attaches it to the mediastinum. Now the lungs and the heart are exposed. The sternum is set aside and will eventually be replaced at the end of the autopsy. At this stage, the organs are exposed. Usually, the organs are removed in a systematic fashion. Making a decision as to what order the organs are to be removed will depend highly on the case in question. Organs can be removed in several ways: The first is the en masse technique of Letulle whereby all the organs are removed as one large mass. The second is the en bloc method of Ghon. The most popular in the UK is a modified version of this method, which is divided into four groups of organs. Although these are the two predominant evisceration techniques, in the UK variations on these are widespread. One method is described here: The pericardial sac is opened to view the heart. Blood for chemical analysis may be removed from the inferior vena cava or the pulmonary veins. Before removing the heart, the pulmonary artery is opened in order to search for a blood clot. The heart can then be removed by cutting the inferior vena cava, the pulmonary veins, the aorta and pulmonary artery, and the superior vena cava. This method leaves the aortic arch intact, which will make things easier for the embalmer. The left lung is then easily accessible and can be removed by cutting the bronchus, artery, and vein at the hilum. The right lung can then be similarly removed. The abdominal organs can be removed one by one after first examining their relationships and vessels. Most pathologists, however, prefer the organs to be removed all in one "block". Using dissection of the fascia, blunt dissection; using the fingers or hands and traction; the organs are dissected out in one piece for further inspection and sampling. During autopsies of infants, this method is used almost all of the time. The various organs are examined, weighed and tissue samples in the form of slices are taken. Even major blood vessels are cut open and inspected at this stage. Next, the stomach and intestinal contents are examined and weighed. This could be useful to find the cause and time of death, due to the natural passage of food through the bowel during digestion. The more area empty, the longer the deceased had gone without a meal before death. A brain autopsy demonstrating signs of meningitis. The forceps (center) are retracting the dura mater (white). Underneath the dura mater are the leptomeninges, which appear to be edematous and have multiple small hemorrhagic foci. Autopsy of a brain after sectioning, showing a normal brain with the cerebrum cut in coronal sections, and the cerebellum, pons and medulla cut in horizontal sections. Standard sections for microscopic examination are annotated. The body block that was used earlier to elevate the chest cavity is now used to elevate the head. To examine the brain, an incision is made from behind one ear, over the crown of the head, to a point behind the other ear. When the autopsy is completed, the incision can be neatly sewn up and is not noticed when the head is resting on a pillow in an open casket funeral. The scalp is pulled away from the skull in two flaps with the front flap going over the face and the rear flap over the back of the neck. The skull is then cut with a circular (or semicircular) bladed reciprocating saw to create a "cap" that can be pulled off, exposing the brain. The brain is then observed in situ. Then the brain's connections to the cranial nerves and spinal cord are severed, and the brain is lifted out of the skull for further examination. If the brain needs to be preserved before being inspected, it is contained in a large container of formalin (15 percent solution of formaldehyde gas in buffered water) for at least two, but preferably four weeks. This not only preserves the brain, but also makes it firmer, allowing easier handling without corrupting the tissue. An important component of the autopsy is the reconstitution of the body such that it can be viewed, if desired, by relatives of the deceased following the procedure. After the examination, the body has an open and empty thoracic cavity with chest flaps open on both sides; the top of the skull is missing, and the skull flaps are pulled over the face and neck. It is unusual to examine the face, arms, hands or legs internally. In the UK, following the Human Tissue Act 2004 all organs and tissue must be returned to the body unless permission is given by the family to retain any tissue for further investigation. Normally the internal body cavity is lined with cotton, wool, or a similar material, and the organs are then placed into a plastic bag to prevent leakage and are returned to the body cavity. The chest flaps are then closed and sewn back together and the skull cap is sewed back in place. Then the body may be wrapped in a shroud, and it is common for relatives to not be able to tell the procedure has been done when the body is viewed in a funeral parlor after embalming. Cavitation at gross pathology of an old stroke in the left posterior parietal lobe An autopsy of stroke may be able to establish the time taken from the onset of cerebral infarction to the time of death. Various microscopic findings are present at times from infarction as follows:[31] Histopathology at high magnification of a normal neuron, and an ischemic stroke at approximately 24 hours on H&E stain: The neurons become hypereosinophilic and there is an infiltrate of neutrophils. There is slight edema and loss of normal architecture in the surrounding neuropil. Finding Presence Eosinophilic (red) neurons 1–35 days Polymorphonuclear leukocytes 1–37 days Other acute neuronal injuries 1–60 days Coagulative necrosis 1 day – 5 years Spongiosis of surrounding tissue 1 day and older Astrogliosis (gemistocytes) 2 days and older Neo-vascularization 3 days and older Hemosiderin pigment 3 days and older Mononuclear inflammatory cells 3 days–50 years Macrophages 3 days–50 years Cavitation 12 days or older Micrograph showing cortical pseudolaminar necrosis, a finding seen in strokes on medical imaging and at autopsy. H&E-LFB stain. Micrograph of the superficial cerebral cortex showing neuron loss and reactive astrocytes in a person that has had a stroke. H&E-LFB stain. See also: History of dissection Dissection, 19th century US Around 3000 BCE, ancient Egyptians were one of the first civilizations to practice the removal and examination of the internal organs of humans in the religious practice of mummification.[1][32] Autopsies that opened the body to determine the cause of death were attested at least in the early third millennium BCE, although they were opposed in many ancient societies where it was believed that the outward disfigurement of dead persons prevented them from entering the afterlife[33] (as with the Egyptians, who removed the organs through tiny slits in the body).[1] Notable Greek autopsists were Erasistratus and Herophilus of Chalcedon, who lived in 3rd century BCE Alexandria, but in general, autopsies were rare in ancient Greece.[33] In 44 BCE, Julius Caesar was the subject of an official autopsy after his murder by rival senators, the physician's report noting that the second stab wound Caesar received was the fatal one.[33] Julius Caesar had been stabbed a total of 23 times.[34] By around 150 BCE, ancient Roman legal practice had established clear parameters for autopsies.[1] The greatest ancient anatomist was Galen (CE 129– c. 216), whose findings would not be challenged until the Renaissance over a thousand years later.[35] Autopsy (1890) by Enrique Simonet Ibn Tufail has elaborated on autopsy in his treatise called Hayy ibn Yaqzan and Nadia Maftouni, discussing the subject in an extensive article, believes him to be among the early supporters of autopsy and vivisection.[36] The dissection of human remains for medical or scientific reasons continued to be practiced irregularly after the Romans, for instance by the Arab physicians Avenzoar and Ibn al-Nafis. In Europe they were done with enough regularity to become skilled, as early as 1200, and successful efforts to preserve the body, by filling the veins with wax and metals.[35] Until the 20th century,[35] it was thought that the modern autopsy process derived from the anatomists of the Renaissance. Giovanni Battista Morgagni (1682–1771), celebrated as the father of anatomical pathology,[37] wrote the first exhaustive work on pathology, De Sedibus et Causis Morborum per Anatomen Indagatis (The Seats and Causes of Diseases Investigated by Anatomy, 1769).[1] In 1543, Andreas Vesalius conducted a public dissection of the body of a former criminal. He asserted and articulated the bones, this became the world's oldest surviving anatomical preparation. It is still displayed at the Anatomical Museum at the University of Basel.[38] In the mid-1800s, Carl von Rokitansky and colleagues at the Second Vienna Medical School began to undertake dissections as a means to improve diagnostic medicine.[34] The 19th-century medical researcher Rudolf Virchow, in response to a lack of standardization of autopsy procedures, established and published specific autopsy protocols (one such protocol still bears his name). He also developed the concept of pathological processes.[39] During the turn of the 20th century, the Scotland Yard created the Office of the Forensic Pathologist, a medical examiner trained in medicine, charged with investigating the cause of all unnatural deaths, including accidents, homicides, suicides, etc. A field post-mortem exam of an ewe (female sheep) A post-mortem examination, or necropsy, is far more common in veterinary medicine than in human medicine. For many species that exhibit few external symptoms (sheep), or that are not suited to detailed clinical examination (poultry, cage birds, zoo animals), it is a common method used by veterinary physicians to come to a diagnosis. A necropsy is mostly used like an autopsy to determine the cause of death. The entire body is examined at the gross visual level, and samples are collected for additional analyses.[40] Body identification Digital autopsy Forensic anthropology Forensic facial reconstruction Forensic identification Murder book Virtopsy Vivisection ^ The term necropsy usually refers to an autopsy for a non-human body, while the terms autopsy, post-mortem, and obduction are usually for human bodies. ^ a b c d e Rothenberg K (2008). "The Autopsy Through History". In Ayn Embar-seddon, Allan D. Pass (ed.). Forensic Science. Salem Press. p. 100. ISBN 978-1-58765-423-7. ^ Clark MJ (2005). "Historical Keyword 'autopsy'". The Lancet. 366 (9499): 1767. doi:10.1016/S0140-6736(05)67715-X. PMID 16298206. ^ "post-mortem (adj.)". Online Etymology Dictionary. Retrieved 28 April 2020. ^ Hirst GM, Colson FH (1929). "Stories and Legends. A First Greek Reader, with Notes, Vocabulary and Exercises". The Classical Weekly. 22 (12): 96. doi:10.2307/4389260. JSTOR 4389260. ^ Gagea-Iurascu M, Craig S (2012). "Euthanasia and Necropsy". The Laboratory Rabbit, Guinea Pig, Hamster, and Other Rodents. pp. 117–139. doi:10.1016/B978-0-12-380920-9.00004-3. ISBN 978-0-12-380920-9. ^ "Do you need an autopsy for a wrongful death case in Georgia?". baderscott.com. 2 August 2023. Retrieved 2 March 2024. ^ Religions and the Autopsy at eMedicine ^ Michael Tsokos, "Die Klaviatur des Todes", Knaur, Munich, 2013, pp. 179–89 ^ Ravakhah K (July 2006). "Death Certificates Are Not Reliable: Revivification of the Autopsy". Southern Medical Journal. 99 (7): 728–733. doi:10.1097/01.smj.0000224337.77074.57. PMID 16866055. ^ Shojania KG, Burton EC, McDonald KM, Goldman L (2003). "Changes in rates of autopsy-detected diagnostic errors over time: a systematic review". JAMA: The Journal of the American Medical Association. 289 (21): 2849–56. doi:10.1001/jama.289.21.2849. PMID 12783916. ^ Roulson J, Benbow EW, Hasleton PS (December 2005). "Discrepancies between clinical and autopsy diagnosis and the value of post mortem histology; a meta-analysis and review". Histopathology. 47 (6): 551–559. doi:10.1111/j.1365-2559.2005.02243.x. PMID 16324191. ^ Combes A, Mokhtari M, Couvelard A, Trouillet JL, Baudot J, Hénin D, Gibert C, Chastre J (2004). "Clinical and autopsy diagnoses in the intensive care unit: a prospective study". Archives of Internal Medicine. 164 (4): 389–92. doi:10.1001/archinte.164.4.389. PMID 14980989. ^ Papadakis MA, Mangione CM, Lee KK, Kristof M (1991). "Treatable abdominal pathologic conditions and unsuspected malignant neoplasms at autopsy in veterans who received mechanical ventilation". JAMA: The Journal of the American Medical Association. 265 (7): 885–87. doi:10.1001/jama.265.7.885. PMID 1992186. ^ a b c d Strasser RS (2008). "Autopsies". In Ayn Embar-seddon, Allan D. Pass (ed.). Forensic Science. Salem Press. p. 95. ISBN 978-1-58765-423-7. ^ Roberts IS, Benamore RE, Benbow EW, Lee SH, Harris JN, Jackson A, Mallett S, Patankar T, Peebles C, Roobottom C, Traill ZC (2012). "Post-mortem imaging as an alternative to autopsy in the diagnosis of adult deaths: A validation study". The Lancet. 379 (9811): 136–42. doi:10.1016/S0140-6736(11)61483-9. PMC 3262166. PMID 22112684. ^ Mahoney Criminal Defense Group ^ Barton L, Duval E, Stroberg E, Ghosh S, Mukhopadhyay S (April 2020). "COVID-19 autopsies, Oklahoma, USA". American Journal of Clinical Pathology. 153 (6): 725–733. doi:10.1093/ajcp/aqaa062. PMC 7184436. PMID 32275742. ^ Peres LC (2017). "Post-mortem examination in the United Kingdom: present and future". Autopsy and Case Reports. 7 (2): 1–3. doi:10.4322/acr.2017.017. PMC 5507562. PMID 28740832. ^ Krywanczyk A, Mount S (February 2018). "In Defense of the Academic Autopsy". Archives of Pathology & Laboratory Medicine. 142 (2): 157–158. doi:10.5858/arpa.2017-0344-LE. PMID 29372850. ^ Wichmann D, Obbelode F, Vogel H, Hoepker WW, Nierhaus A, Braune S, Sauter G, Pueschel K, Kluge S (17 January 2012). "Virtual Autopsy as an Alternative to Traditional Medical Autopsy in the Intensive Care Unit: A Prospective Cohort Study". Annals of Internal Medicine. 156 (2): 123–130. doi:10.7326/0003-4819-156-2-201201170-00008. PMID 22250143. ^ Filograna L, Pugliese L, Muto M, Tatulli D, Guglielmi G, Thali MJ, Floris R (February 2019). "A Practical Guide to Virtual Autopsy: Why, When and How". Seminars in Ultrasound, CT and MRI. 40 (1): 56–66. doi:10.1053/j.sult.2018.10.011. PMID 30686369. ^ UK Department for Constitutional Affairs (2006), Coroners Service Reform Briefing Note Archived 2008-11-06 at the Wayback Machine, p. 6 ^ Turnbull A.J., Osborn M., Nicholas N. (June 2015). "Hospital Autopsy: endangered or extinct?". Journal of Clinical Pathology. 68 (8): 601–04. doi:10.1136/jclinpath-2014-202700. PMC 4518760. PMID 26076965. ^ "Leichenschau: Gefahr durch Unterfinanzierung von Bernd Thode" (in German). Deutsches Ärzteblatt. 2019. Retrieved 21 September 2019. ^ Centers for Disease Control and Prevention (1988) , Current Trends Autopsy Frequency – United States, 1980–1985, Morbidity and Mortality Weekly Report, 37(12);191–94 ^ Pollock DA, O'Neil JM, Parrish RG, Combs DL, Annest JL (1993). "Temporal and geographic trends in the autopsy frequency of blunt and penetrating trauma deaths in the United States". JAMA: The Journal of the American Medical Association. 269 (12): 1525–31. doi:10.1001/jama.1993.03500120063027. PMID 8445815. ^ "Products – Data Briefs – Number 67". Centers for Disease Control and Prevention. August 2011. Retrieved 6 February 2017. ^ "Glossary:Autopsy". ec.europa.eu. Retrieved 2 March 2024. ^ "MEDICO-LEGAL SYSTEMS IN EUROPE | Office of Justice Programs". www.ojp.gov. Retrieved 2 March 2024. ^ St Andrew's House (18 July 2007). "Inspectorate of Prosecution in Scotland – Death Cases: A Thematic Report on Liaison in Death Cases with Particular Reference to Organ Retention". Scottish Government. ^ Mărgăritescu O, Mogoantă L, Pirici I, Pirici D, Cernea D, Mărgăritescu C (2009). "Histopathological changes in acute ischemic stroke". Rom J Morphol Embryol. 50 (3): 327–39. PMID 19690757. ^ "Medicine". Archived from the original on 9 March 2011. ^ a b c Schafer ED (2008). "Ancient science and forensics". In Ayn Embar-seddon, Allan D. Pass (ed.). Forensic Science. Salem Press. p. 43. ISBN 978-1-58765-423-7. ^ a b Bryant, Clifton. Handbook of Death and Dying. California: Sage Publications, Inc, 2003. Print. ISBN 0-7619-2514-7 ^ a b c Pappas S (5 March 2013). "Grotesque Mummy Head Reveals Advanced Medieval Science". Live Science. Retrieved 7 May 2018. ^ Maftouni N (3 April 2019). "Concept of sciart in the Andalusian Ibn Tufail". Pensamiento. Revista de Investigación e Información Filosófica. 75 (283 S.Esp): 543–551. doi:10.14422/pen.v75.i283.y2019.031. ^ Battista Morgagni, Britannica Online Encyclopedia ^ "The Fabric of the human body". Stanford University. Retrieved 6 February 2017. ^ Küskü EA (1 January 2022). "Examination of Scientific Revolution Medicine on the Human Body / Bilimsel Devrim Tıbbını İnsan Bedeni Üzerinden İncelemek". The Legends Journal of European History Studies. ^ "Necropsy". University Animal Care, The University of Arizona. Archived from the original on 7 February 2017. Retrieved 6 February 2017. Wikimedia Commons has media related to Autopsies. Wikisource has the text of the 1911 Encyclopædia Britannica article "Autopsy". Quotations related to Autopsy at Wikiquote Autopsy – a detailed description by a pathologist complete with cartoon figures. The Virtual Autopsy – a site from the University of Leicester where one examines the patient, looks at the (medical) history and gets a try at the diagnosis. Autopsy of a Murder – An interactive exploration of a murder scene and the science involved in a criminalistic investigation: autopsy and laboratory expertise. Produced by the Montreal Science Centre for its namesake exhibition. Autopsy checklist and reporting template at Patholines Retrieved from "