



Designation: **E2920–14** E2920 – 19

Standard Guide for Recording Occupational Injuries and Illnesses¹

This standard is issued under the fixed designation E2920; the number immediately following the designation indicates the year of original adoption or, in the case of revision, the year of last revision. A number in parentheses indicates the year of last reappraisal. A superscript epsilon (ϵ) indicates an editorial change since the last revision or reappraisal.

1. Scope

1.1 This guide is intended to establish definitions and criteria for recording occupational injuries and illnesses to be used for measuring safety performance, evaluating safety program performance, and improving consistency when comparing international performance. A measurement system is desired that is precise and accurate, difficult to manipulate, significant and meaningful for safety program evaluation, and appropriate for accountability purposes in a global environment.

1.2 Objectives of the occupational injury and illness measurement guide are as follows:

1.2.1 Provide a uniform and objective framework for recording ~~work-related~~ work-related injuries and illnesses,

1.2.2 Facilitate use of injury and illness rates as a means of evaluating programs designed to control such injuries and illnesses, and

1.2.3 Establish a basis for meaningful comparison of injury and illness rates across industries and countries.

1.3 In this guide, definitions and procedures necessary to maintain work-related injury and illness records and incidence rates are covered.

1.4 Key elements of this guide include work relationship, definition of injuries and illnesses, levels of severity of occupational incidents, accountability for contractor relationships, and specifications for injury and illness rate calculations.

1.5 *Units*—The values stated in English (or Imperial) units are to be regarded as the standard. The values given in parentheses are mathematical conversions to SI units that are provided for information only.

1.6 *This standard does not purport to address all of the safety concerns, if any, associated with its use. It is the responsibility of the user of this standard to establish appropriate safety, health, and ~~health~~ environmental practices and determine the applicability of regulatory limitations prior to use. This standard is not a substitute for any legally required injury and illness recordkeeping obligations.*

1.7 *This international standard was developed in accordance with internationally recognized principles on standardization established in the Decision on Principles for the Development of International Standards, Guides and Recommendations issued by the World Trade Organization Technical Barriers to Trade (TBT) Committee.*

2. Referenced Documents

2.1 ASTM Standards:²

E1542 Terminology Relating to Occupational Health and Safety

3. Terminology

3.1 ~~Definitions:~~ Definitions—For definitions ~~of some terms used in this~~ not in this standard related to this guide, refer to Terminology E1542.

3.1.1 *contractor, n*—person or business that provides goods or services for an enterprise but works for, is directly supervised by, and is paid by a separate person or business.

3.1.1.1 ~~*contractor—nested, contractor—employer supervised, n*~~—person who performs routine services for an enterprise but works for, is directly supervised by, and is paid by a separate person or business. Examples include on-site guard, logistics, or

¹ This guide is under the jurisdiction of ASTM Committee E34 on Occupational Health and Safety and is the direct responsibility of Subcommittee E34.80 on Industrial Health.

Current edition approved Jan. 1, 2014/Aug. 15, 2019. Published January 2014/August 2019. DOI:10.1520/E2920-14. Originally approved in 2014. Last previous edition approved in 2014 as E2920 – 14. DOI:10.1520/E2920-19.

² For referenced ASTM standards, visit the ASTM website, www.astm.org, or contact ASTM Customer Service at service@astm.org. For Annual Book of ASTM Standards volume information, refer to the standard's Document Summary page on the ASTM website.

maintenance services by an employer on a day-to-day basis but is paid indirectly through an agency or third party. Examples include daily workers and temporary workers.

3.1.1.2 *contractor—~~independent~~*, *n*—person who works for, is directly supervised by, and is paid by one person or business but performs services at various other businesses. Examples include persons engaged in temporary projects such as machine rigging, ventilation installation, or construction. Other examples are copy machine repair and package delivery.

3.1.1.3 *contractor—~~employer supervised~~*, *contractor—~~nested~~*, *n*—person who performs routine services for an enterprise but works for, is directly supervised by an employer on a day-to-day basis but is paid indirectly through an agency or third party. Examples include daily workers and temporary workers by, and is paid by a separate person or business. Examples include on-site guard, logistics, or maintenance services.

3.1.2 *employee*, *n*—person who works for another in return for payment. As used in this guide, the term includes employer-supervised contractors, but does not include independent or nested contractors.

3.1.2.1 *Discussion*—

As used in this guide, the term “employee” includes contractors that are directly supervised by the employer. Temporary workers and workers with individual contract relationships may be included in this category. Independent and nested contractors are not included in the term “employee.”

3.1.3 *illness*, *n*—occurrence of physical or mental harm or disease that develops over time in the course of work not as the result of a single or instantaneous event.

3.1.4 *injury*, *n*—occurrence of physical or mental harm in the course of work as a result of a single or instantaneous event.

3.1.5 *Level One cases*—Level One cases are those cases that satisfy the work relationship and severity criteria of this guide.

3.1.6 *Level Two cases*—Level Two cases are those cases currently required to be reported by countries, states, and other jurisdictions.

3.1.7 *work related*, *adj*—those cases that arise from activities within the scope of employment or are related to a condition of employment, or both.

4. Significance and Use

4.1 This guide is intended to define work-related injuries and illnesses in a way that can be easily understood and measured across countries. These injuries and illnesses can be used to evaluate, compare, and continually improve management systems and programs related to worker safety and health. Although several levels of severity may be defined, the primary objective is to identify cases with meaningful connection to work and cases with such potential consequence that they have value for prevention purposes. The resultant data and incidence rates should improve global benchmarking consistency. <https://standards.iteh.ai>

4.2 This guide defines recording criteria for Level One cases—cases that have a clear connection to the workplace and consequences that are significant for driving injury and illness prevention and efforts.

4.3 While not mandated by this guide, recording of Level Two cases is encouraged and will still be mandatory in many jurisdictions. Level Two cases are those cases currently required to be reported by countries, states, and other jurisdictions.

5. Work Relationship

5.1 An injury or illness to an employee is considered to be work related if it meets the following three tests:

5.1.1 *Test 1*—Was the case related to a condition of employment and therefore within the general scope of employment? Specifically, was the employee:

- (1) Being paid at the time of the injury and illness exposure, or
- (2) Required by his or her employer to do the job or task, or both, or
- (3) Performing the activity because the performance of the job mandated that the activity be undertaken?

5.1.1.1 If the answer is “no” to all three conditions, then the case is not work related.

5.1.1.2 If the answer to any of these three questions is “yes,” then the case is “in scope” and may be considered work related if the following additional two tests are satisfied.

5.1.2 *Test 2*—Was there a direct connection between the exposure and the resulting employee condition? Did the exposure either trigger the onset of symptoms or contribute to the severity of the case?

5.1.2.1 If the answer is “no,” then the case is not work related.

5.1.2.2 If the answer is “yes,” then the case is connected to work and may be considered work related if the other two tests are satisfied.

5.1.2.3 Alternatively, for Test 2, ask: “would the case have occurred at the same time and with the same degree of severity without the work exposure identified in 5.1.1 above?”

- (1) If the answer is “yes,” then the case is not work related.

(2) If the answer is “no,” then the case is connected to work and may be considered work related if the other two tests are satisfied.

5.1.3 *Test 3*—At the time of the incident/exposure, was the activity the employee engaged in, or the environmental factor(s) that contributed to the case, subject to the general authority/control of the employer?

5.1.3.1 If the answer is “no,” then the case is not work related.

5.1.3.2 If the answer is “yes,” then the case may be considered work related if the other two tests are met.

5.1.3.3 When applying Test 3, even if the tests in 5.1.1 and 5.1.2 are met, do not consider the case work related if the exposure was so personal in nature as to negate its relevance for prevention purposes. Examples:

- (1) Employee throws back out from ~~common-cold-related~~ common-cold-related sneeze (normal body movement).
- (2) Employee injures herself while preparing her own food or drink.
- (3) Employee injures himself while conducting personal grooming.

NOTE 1—Employees can be doing something other than a specific work task and still be subject to the employer’s authority/control. This includes support functions connected to work processes and operations, administrative functions connected to work, and normal living activities that routinely take place at work if the employer has the authority to regulate how those living activities are conducted.

5.1.4 Injuries and illnesses of complex or multiple origins, including musculoskeletal conditions and certain occupational diseases such as hearing loss, are considered work related if the above work-related criteria contributed sufficiently to the condition to increase the severity level of the condition or trigger the onset of the condition.

5.1.5 Examples of injury and illness exposures that are provided in **Appendix X1**.

5.2 The following factors, although sometimes useful when investigating or evaluating a case, are not used to determine work relationship or level of severity:

- 5.2.1 Whether or not a worker receives compensation for wages lost as a result of the effects of an injury or illness;
- 5.2.2 Whether an employee receives disability payments;
- 5.2.3 Whether time off work is prescribed;
- 5.2.4 The type of treatment provided;
- 5.2.5 Who was at fault.

6. Severity

6.1 The following severity criteria are incorporated into this guide:

6.1.1 *Level One*—This guide is intended to capture “core” injuries and illnesses that result in death, are life threatening, life altering, or so serious that they require immediate medical intervention for recovery.

6.1.1.1 Level One injuries would consist of any of the following:

- (1) Fatality;
- (2) Amputation (involving bone);
- (3) Spinal cord injury;
- (4) Herniated disc of the cervical, lumbar, or thoracic spinal region, or combinations thereof;
- (5) Concussion or cerebral hemorrhage, or both;
- (6) Loss of consciousness;
- (7) Injury to internal organs;
- (8) Fractured bone or tooth;
- (9) Cartilage, tendon, ligament, or muscle tear;
- (10) Dislocation of any joint;
- (11) Laceration or puncture requiring wound closure, such as sutures or surgical glue;
- (12) Musculoskeletal disorder requiring surgery or resulting in permanent impairment;
- (13) Third-degree burn or second-degree burn greater than 3 in. (7.6 cm) in diameter, or both;
- (14) Punctured eardrum; and
- (15) Injury to the eye requiring services of a physician (other than preventive treatment).

6.1.1.2 Level One illnesses would consist of any of the following:

- (1) Fatality that results from prolonged exposure;
- (2) Occupational dermatitis with blistering or cracking, or both, covering an area of skin greater than 3 in. (7.6 cm) in diameter;
- (3) Occupationally acquired human immunodeficiency virus (HIV), hepatitis B or C;
- (4) Occupationally acquired cancer;
- (5) Occupationally acquired lung disease;
- (6) Occupationally acquired infectious disease;
- (7) Occupationally acquired disease of the liver, spleen, kidney, heart, brain, nervous system, pancreas, thyroid, or other vital organ; and

(8) Confirmed work-related threshold shift greater than ~~10 dB~~ 10 dB (averaged at 2000, 3000, and 4000 Hz) resulting in a total shift in that same ear of more than 25 dB from audiometric zero.