

## 4.3 Relationships

SNOMED CT relationships represent an association between two concepts. Relationships are used to logically define the meaning of concept in a way that can be processed by a computer. A third concept, called a relationship type, is used to represent the meaning of the association between the source and destination concepts. There are different types of relationships available within SNOMED CT.

Subtype relationships, which use the `|is a|` relationship type, are the most widely used type of relationship. The SNOMED CT concept hierarchy is constructed from `|is a|` relationships. For example, the concept 128276007 `|cellulitis of foot|` has an `|is a|` relationship to both the concept 118932009 `|disorder of foot|` and the concept 128045006 `|cellulitis|`. Subtype relationships are used in many analytics scenarios to aggregate groups of concepts together, or to perform queries using more abstract (less detailed) concepts that match more specific (or more detailed) concepts stored in health records.

Attribute relationships contribute to the definition of the source concept by associating it with the value of a defining characteristic. For example, the concept `|viral pneumonia|` has a `|causative agent|` relationship to the concept `|Virus|` and a `|finding site|` relationship to the concept `|lung|`. Attribute relationships are used in analytics scenarios in which the meaning of a concept is needed to determine whether a record matches the query criteria.