

= Afternoon =

Afternoon is the time of the day between noon and evening . It is the time when the sun is descending from its zenith in the sky to somewhat before its terminus at the horizon in the west direction . In human life , it occupies roughly the latter half of the standard work and school day . It is also associated with a number of concerns related to health , safety , and economic productivity : generally , the early afternoon , after most people have eaten lunch , corresponds to decreased work performance , decreased alertness , and a higher incidence of motor vehicle accidents . It is usually from 12 PM to 6 PM .

= Terminology =

Afternoon is the time occurring between noon and evening . The specific range of time this encompasses varies in one direction : noon is currently defined as a constant 12 : 00 pm , but when afternoon ends is dependent on when evening begins , for which there is no standard definition . However , before a period of transition from the twelfth to fourteenth centuries , noon instead referred to 3 pm ? possible explanations include shifting times for prayers and midday meals , along which one concept of noon was defined ? and so afternoon would have referred to a narrower timeframe .

The word afternoon , which derives from after and noon , has been attested from about the year 1300 ; Middle English contained both afternoon and the synonym aftermete . The standard locative marking for the word was at afternoon in the fifteenth and sixteenth centuries but has shifted to in the afternoon since then . In Southern U.S. and Midland American English , the word evening is sometimes used to encompass all times between noon and night . The Irish language contains four different words to mark time intervals from late afternoon to nightfall , this period being considered mystical . Metaphorically , the word afternoon refers to a relatively late period in the expanse of time or in one 's life .

The term should not be confused with " after noon " (two separate words) , which is a translation of the Latin post meridiem (p.m.) , meaning a time between 12 : 00 midday and 12 : 00 midnight .

= Events =

Afternoon is a time when the sun is descending from its daytime peak . During the afternoon , the sun moves from roughly the center of the sky to deep in the west . In late afternoon , sunlight is particularly bright and glaring , because the sun is at a low angle in the sky . The standard working time in most industrialized countries goes from the morning to the late afternoon or evening ? archetypally , 9 am to 5 pm ? so the latter part of this time takes place in the afternoon . Schools usually let out during the afternoon as well .

= Effects on living organisms =

= Hormones and body temperature =

In diurnal animals , it is typical for blood levels of the hormone cortisol ? which is used to increase blood sugar and aid metabolism and is also produced in response to stress ? to be most stable in the afternoon after decreasing throughout the morning . However , cortisol levels are also the most reactive to environmental changes unrelated to sleep and daylight during the afternoon . As a result , this time of day is considered optimal for researchers studying stress and hormone levels . Plants generally have their highest photosynthetic levels of the day at noon and in the early afternoon , owing to the sun 's high angle in the sky . The large proliferation of maize crops across Earth has caused tiny , harmless fluctuations in the normal pattern of atmospheric carbon dioxide levels , since these crops photosynthesize large amounts of carbon dioxide during these times and this process

sharply drops down during the late afternoon and evening .

In humans , body temperature is typically highest during the mid to late afternoon . However , human athletes being tested for physical vigor on exercise machines showed no statistically significant difference after lunch . Owners of factory farms are advised to use buildings with an east ? west (as opposed to north ? south) orientation to house their livestock , because an east ? west orientation generally means thicker walls on the east and west to accommodate the sun 's acute angle and intense glare during late afternoon . When these animals are too hot , they are more likely to become belligerent and unproductive .

= = = Alertness = = =

The afternoon , especially the early afternoon , is associated with a dip in a variety of areas of human cognitive and productive functioning . Notably , motor vehicle accidents are common in the early afternoon , when drivers presumably have recently finished lunch . A study of motor accidents in Sweden between 1987 and 1991 found that the time around 5 pm had by far the most accidents : around 1 @, @ 600 at 5 pm compared to around 1 @, @ 000 each at 4 pm and 6 pm . This trend may have been influenced by the afternoon rush hour , but the morning rush hour showed a much smaller increase . In Finland , accidents in the agriculture industry are most common in the afternoon , specifically Monday afternoons in September .

One psychology professor studying circadian rhythms found that his students performed somewhat worse on exams in the afternoon than in the morning , but even worse in the evening . Neither of these differences , however , was statistically significant . Four studies carried out in 1997 found that subjects who were given tests on differentiating traffic signs had longer reaction times when tested at 3 : 00 pm and 6 : 00 pm than at 9 : 00 am and 12 : 00 pm . These trends held across all four studies and for both complex and abstract questions .

Human productivity routinely decreases in the afternoon . Power plants have shown significant reductions in productivity in the afternoon compared to the morning , the largest differences occurring on Saturdays and the smallest on Mondays . One 1950s study covering two female factory workers for six months found that their productivity was 13 percent lower in the afternoon , the least productive time being their last hour at work . It was summarized that the differences came from personal breaks and unproductive activities at the workplace . Another , larger study found that afternoon declines in productivity were greater during longer work shifts .

It is important to note , however , that not all humans share identical circadian rhythms . One study across Italy and Spain had students fill out a questionnaire , then ranked them on a " morningness ? eveningness " scale . The results were a fairly standard bell curve . Levels of alertness over the course of the day had a significant correlation with scores on the questionnaire . All categories of participants ? evening types , morning types , and intermediate types ? had high levels of alertness from roughly 2 pm to 8 pm , but outside this window their alertness levels corresponded to their scores .