Moreover, the long-term cognitive impacts of sleep deprivation are profound, with serious implications for both personal health and societal function. Chronic lack of sleep has been linked to an increased risk of developing dementia and experiencing chronic fatigue, conditions that significantly impair an individual's quality of life (Ref-f173124). These detrimental effects on cognitive health are particularly concerning when considering their impact on academic and professional performance. For instance, the persistent impairment of memory consolidation due to prolonged sleep deprivation can lead to difficulties in learning and skill acquisition, ultimately affecting productivity and career advancement (Ref-f173124). As these cognitive deficits accumulate over time, they underscore the necessity of addressing sleep deprivation to maintain both individual cognitive health and broader economic productivity.