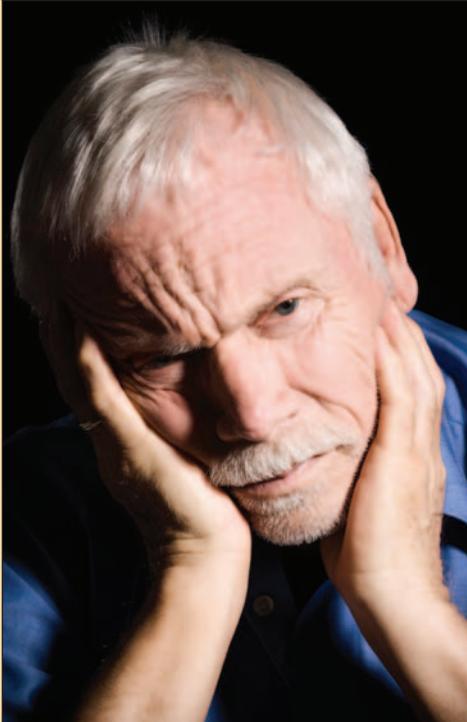


Daily Stress

How Does It Affect Our Health & Well-being?



What MIDUS has:

- ▶ 2022 MIDUS participants, aged 34-84, completed telephone interviews about their daily experiences eight evenings in a row.
- ▶ Other studies have examined single stressful life events, such as divorce. *MIDUS researchers are interested in whether the stress of day to day living wears us out.*

Types of Daily Stressors:

- ▶ Arguments were the most commonly experienced stressful event (53%), followed by network stressors (problems that happen to another person in your circle of family & friends, 17%), work demands (15%), home demands (9%), health care (2%), and 4% other.
- ▶ Participants had at least one stressful event on 39% of days and multiple stressful events on 10% of days.



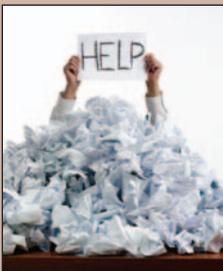
THE TWO STAGES OF STRESS

1 **STRESSORS:** the Events

such as arguments over housework, traffic jams, work overloads, home repairs, or financial problems.

EXPOSURE VARIES BY GENDER & AGE

- ▶ Women entering midlife experienced more stressful events than any other group, with stress occurring on half of their days.
- ▶ Older men had the least amount of daily stressors.
- ▶ Younger adults had the most arguments.
- ▶ Adults in midlife had the most overload (having too much to do and not enough time to do it).



- ▶ Older people experienced more network stressors (events that happen to close friends and relatives, such as a loved one having financial problems).

2 **DISTRESS:** our Response

Can we remain calm in the face of stress, or do we react *emotionally* (feeling angry, sad, or anxious) or *physically* (with headaches, stomach cramps, colds, or flu)?



REACTIONS VARY BY AGE

- ▶ Younger people were much more emotionally distressed on days when they experienced stressors. People in midlife and older were able to remain calmer.
- ▶ However, older adults still experienced high levels of distress related to network events over which they had little control, such as a spouse's illness.



DOES DAILY STRESS AFFECT OUR PHYSICAL HEALTH?

Daily Patterns of Stress Hormone: Cortisol

1

Cortisol

- ↳ Participants gave 4 days of saliva samples to track their cortisol levels.
- ↳ *Cortisol is a stress hormone that mobilizes energy. Higher levels of cortisol can mean that the body is using more energy to cope with higher levels of stress.*



2

A Healthy Daily Rhythm of Cortisol

- ↳ *peaks in the morning, thereby helping people to wake up and feel energized for the day.*
- ↳ Cortisol then *usually drops steadily throughout the day*, so that by the end of the evening one can disengage, sleep, and recuperate for the next morning.
- ↳ *Disruptions in this daily pattern are associated with mental and physical health problems.*



3

Stress Disrupts Healthy Cortisol

- ↳ On days when people had more arguments and interpersonal tensions, their level of cortisol did not decline as much by the end of the day. *This disruption was even greater when the argument involved family members.*
- ↳ Chronically stressed adults (who reported high levels of daily stress during the initial study and 10 years later) exhibited:
 - ↳ a lower morning rise in cortisol in all age groups
 - ↳ less of a daily decline in cortisol for middle age & older adults.
- ↳ *Chronically stressed older adults had the most disrupted pattern, with a morning drop in cortisol and very little daily decline, meaning that they weren't energized to start their day and were too stressed to unwind at bedtime.*





The irony is this: Our bodies react to stress in exactly the same way whether or not we have a good reason for being stressed....Even in those times when we feel perfectly justified in getting angry...we pay for it just the same.

☞ Doc Childre & Howard Martin

What Supports a Healthy Cortisol Rhythm?

Retiring at the Right Time

- Working people had less of a daily drop in the stress hormone cortisol compared to those who were retired.
- Older workers and younger retirees had higher levels of cortisol at bedtime than younger workers or older retirees.
- *This suggests that retiring too early or staying in the workforce too long may lead to disrupted cortisol rhythms.*



Staying Healthy

- Those who had more daily health problems (such as headaches or muscle pain), who experienced symptoms on more days, or who felt their symptoms were more severe, had less of a decrease in daily cortisol levels, making them less able to disengage from stress at the end of the day.



Early to Bed & Early to Rise

- Participants who woke up late in the morning, even after having slept 8 hours, and those who slept relatively little (around 6 hours), reported poorer health.
- *Adults who consistently slept around 8 hours a night and woke up around 5:30 am had the steepest daily drop in the stress hormone cortisol, as well as the best physical health.*



If you ask what is the single most important key to longevity, I would have to say it is avoiding worry, stress, and tension.

☞ George Burns

What Protects Us from Stress?

Future Directions

Our findings show that day to day stresses are associated with poorer emotional and physical health. Thus, adults who don't learn to cope with stress may pay a physical price in poor health. It may also be true that poor physical and emotional health contribute to more daily stress. Future research is needed to investigate these possibilities, as well as to determine how disruptions to daily cortisol rhythms are related to other health problems, such as immune dysfunction and heart disease.



The Good News

As we get older, most of us tend to experience less daily stress. Most older adults have "figured out" how to avoid stressful situations or have developed ways of coping with them.



More Education

- ↳ Those who didn't graduate from high school faced more severe stressful events and were more upset by them.
- ↳ *Adults with more years of schooling had more stressors, but responded to them with fewer physical problems and less emotional distress.*

Adopting the right attitude can convert a negative stress into a positive one.

∞ Hans Selye



Staying Healthy

- ↳ People of all ages who had multiple chronic illnesses (such as diabetes or heart disease) were more worried by stressful events.
- ↳ *Older adults, who are usually more quick to recover, reacted just as badly to stressful events as younger people, if they had four or more chronic illnesses.*



Feeling in Control

- ↳ **Network Stressors:** Middle-aged adults who felt in control of their lives were less upset over problems happening to others in their networks. Younger and older people who didn't feel in control had more physical reactions (such as headaches or nausea).
- ↳ **Interpersonal Stressors:** Older adults who felt in control were less distressed and had fewer physical reactions to arguments. Younger adults, who may be more focused on establishing relationships, reacted more negatively.
- ↳ **Work Stressors:** Younger and older adults who felt in control had fewer physical problems in reaction to stressful situations at work. This was not true for those in midlife, perhaps because they are more focused on earning a living.

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Thank You!

We are grateful to all MIDUS participants who continue to give so generously of their time to participate in our research. The data collected will help investigators continue to study how daily stress affects us as we age.