

## Patient Information:

## Fatigue and The College Student

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### INTRODUCTION

Fatigue is a subjective symptom of tiredness, weariness, or lack of energy. It is the 7<sup>th</sup> most common symptom (sore throat, nausea, headache, nasal congestion etc.) described during medical office visits in the United States. Nearly 7% of patients presenting symptoms to family doctors complain of fatigue as the primary problem. Fatigue may result from virtually every physical and psychological illness.

Fortunately fatigue in the college student is self-limited and clears with time. There are four major classes of fatigue: physiologic, physical, psychological, and mixed fatigue.

### TYPES OF FATIGUE

*Physiologic fatigue* is the most common type found in the college student and is usually due to overwork, lack of sleep, or a defined physical stress such as pregnancy. It can normally be expected in a mentally and physically healthy individual experiencing such stress. Across the lifespan, females are shown, as a group, to work more hours in a day and more years in their lives than males. This may be why women visit physicians more often for fatigue than men. Students, because of irregular or inadequate sleep patterns, those on weight reducing diets, those with excessive or minimal exercise regimens, or those spending long hours commuting and working are at increased risk of physiologic fatigue.

*Physical fatigue*, as a result of infection (ex. mono, flu), anemia, medication, pregnancy and endocrine imbalance, is the second most common type of fatigue known to the college student. Furthermore, heart disease, cancer, autoimmune and connective tissue diseases and other ailments cause physical fatigue.

*Psychological fatigue* results from illnesses including depression, anxiety, persistent stress, and adjustment reactions. Students who are the children of alcoholics are at increased risk for fatigue and depression.

*"Mixed" fatigue* involves any of the above categories occurring in combination. An example of mixed fatigue would be a junior chemical engineering student, taking 19 credits, who is in a fraternity, plays intramural soccer, lifts weights and jogs 4 days a week, and who has a history of depression and is actively taking medication for it, who

binge drinks alcohol 2-3 nights a week, drinks 3 16 oz.

Starbuck's coffees and a Diet Coke a day, sleeps an average of 6 hours or less a night, was diagnosed with

mononucleosis 3 weeks ago...sounds exhausting doesn't it?

Young persons, as in this example, do come to us asking,

"How come I feel so tired all of the time?"

### SYMPTOMS, SIGNS, HISTORY AND LIFESTYLE CLUES

The duration of the fatigue is helpful for the clinician to know. Fatigue, lasting 1 month or less is commonly a result of physiologic or physical fatigue; lasting 3 months or longer is likely to be caused by psychological or mixed factors. The practitioner may ask you a number of questions such as if you've had fever, chills, sore throat, cough, shortness of breath, swollen glands, sweats, rash, heartburn, nausea, vomiting, diarrhea, arthritis, or burning with urination in order to determine if there is a physical source of fatigue, such as disease or infection. Stool (feces) color and character and duration and character of menstrual periods are also important information to the clinician, especially if a history of heartburn, stomach ulcers, absence of menses and/or anemia (low blood count) are known. You shouldn't feel offended if asked if you have feelings of depression, anxiousness, panic or overwhelming stress, or a history of these problems in your family. Pregnancy or sexually transmitted disease may be brought up. Fatigue is a commonly shared symptom with these conditions. In addition, family histories of anemia (e.g. iron deficiency and thalassemias), early onset diabetes or thyroid disorders, connective tissue disorders (e.g. fibromyalgia), autoimmune disorders (such as lupus or rheumatoid arthritis) and inflammatory bowel disease (e.g. ulcerative colitis and Crohn's) are important information for us to be aware of. You'll likely be asked about social behaviors; caffeine, drug, alcohol use, frequency and amounts, sleep habits and quality, exercise, recent travel, major of study, credits, grades, relationships with roommates and friends, and clubs.

### EVALUATION

Your visit with a clinician may include a check for unstable vital signs and high temperature, swollen glands, pus on the tonsils, heart murmurs, wheezing and crackling in the lungs, soreness in the abdomen and organ enlargement, swollen joints, rashes and signs of STD's. If thought necessary, a

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## Characteristics Proposed to Distinguish Psychological Fatigue from Physical Fatigue

Characteristic	Psychological	Physical
Duration	Chronic, > 3 months	Acute, < 1 month
Primary Deficit	No desire to do anything, poorly motivated	Ability is absent, desire is present
Onset	Stress related, during busy, work-filled times	Unrelated to stress, during easy and difficult times
Diurnal Pattern	Worse in the morning	Worse in the evening
Course	Fluctuates, waxing and waning	Progressive, severe at first, then improving
Effect of Activity on Fatigue	Relieves	Worsens
Associated Symptoms	Multiple and nonspecific ("I'm dizzy, feel weak all over, my hands tingle, have hot flashes, sleep all the time, and not really hungry")	Few and specific (100.2 temp, sore throat, swollen glands, rash, back and headache)
Family	Stressful, Dysfunctional	Supportive, functional
Appearance	Anxious, depressed, moody	Sickly or ill (sweating, flush, warm)
Family History	Depression, anxiety, panic attack, alcoholism	None
Effect of Increased Sleep	Unaffected or worsened	Relieved

few tests may be obtained from blood, urine, saliva, genital secretions and even stool samples. These will check for infection and general organ health. X-rays, pulse oximetry, spirometry, and/or an electrocardiogram may be obtained. Each student's case is different and the need for tests varies between them. Tests are best determined after a physical exam and history by your health care provider.

### TREATMENT

Fortunately, most students don't usually have an abnormality allowing us to confidently identify a physical cause of fatigue, such as mononucleosis. Normal test results are difficult for most patients to accept. Find reassurance in normal test results, as they mean your fatigue will likely get better with rest and cutting back on excessive activities. But this again, is a bitter pill to swallow in a time where the over-committed and busy student is considered by society to be a successful student. It is made further difficult in this age of "quick fix" medicine, where some patients prefer to take a pill or be told there is a disease causing the fatigue, as opposed to adjusting their maladaptive behaviors to chronic stress. At Schiffert Health Center, we frequently tell patients that poor and inadequate sleep, class workload, social commitments (clubs, pledging, parties, bar-hopping), ingestion of too much caffeine (and alcohol), poor diet, too much exercise (or too little!), and too many extra-curricular activities (intramurals, clubs) are the cause of their fatigue. It is unreasonable to expect your

body to continue to function for an entire semester or academic year on "over-drive" and not break down on you, physically and/or psychologically.

If your fatigue is determined to be from a sleep disturbance, short-term over-the-counter sleep aids may be recommended. In certain cases, prescription sleep aids may be used for short or long-terms. You may require a sleep study by a local specialist.

A host of medications have been advocated for fatigue of unknown origin. A partial list includes vitamins, thyroid medication (for borderline cases), growth hormone, amphetamines, and hydrocortisone. No practitioner at Schiffert Health Center would empirically prescribe a medication for the symptom of fatigue without medical evidence or specific identifiable cause. However, if clinical suspicion of depression is present in a patient with no identifiable cause for fatigue, a two month trial of antidepressants are warranted. These may be dispensed by Cook Counseling Center providers after a consultation with them.

If an infection is identified, most cases of fatigue will clear within days or several weeks. Most infections require time, medications for comfort, and rest. Don't worry – your energy level will return! Other physical causes of fatigue may dictate the student be referred to a specialist such as a Hematologist for severe anemia or an Endocrinologist for thyroid problems. Students with certain sleep disturbances

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may benefit from a sleep study. Some medical problems can be approached initially here at Schiffert Health Center, like asthma and allergy symptoms. If a psychological cause is suspected, we have counselors and psychiatrists on staff at Cook Counseling Center for referral.

To avoid fatigue associated with school the single most beneficial thing you can do is get adequate quantity and good quality sleep. Try to do the following:

- ◆ Go to bed and wake at the same hours every day. Avoid excessive sleeping on weekends or extremes of sleep (little or none or 9+ hours).
- ◆ Use bed for sleeping only – not, studying, TV or Xbox competitions.
- ◆ Caffeine use, more than just a cup in the morning, can interrupt healthy sleep wave patterns for night-time and can result in poor quantity and quality of sleep.
- ◆ Limit or avoid alcohol, especially when already tired. It may help you fall asleep, but it interrupts quality of sleep and in the end you will be in more sleep deficit.
- ◆ Nicotine is a stimulant - it should be avoided in forms of cigarettes and dipping/chewing tobacco.
- ◆ Try to control sleep environment (temperature, noise and light).
- ◆ Wind down for sleep with light reading (mystery novels, not physics!). Wind down prior to bed time, don't play computer games or start arguments and have heated conversations!
- ◆ Use over-the-counter sleep medications (e.g. Tylenol PM<sup>®</sup>, Benadryl<sup>®</sup>) for short-term only. Valerian<sup>®</sup> and Melatonin<sup>®</sup> are sleep aide alternatives alone or in "natural sleep formulas", but should be used for short-terms only, such as for jet-lag. Long-term use is of questionable value. Valerian<sup>®</sup> also has potential interactions with many drugs.
- ◆ Go to bed when sleepy (You have seen that movie before...three times!).
- ◆ Avoid prolonged naps, unless they are short (an hour or less) and part of your normal routine.
- ◆ Remember, sleep where you sleep best, not the floor, sofa, or friends' room.
- ◆ Remember, there is an adaptation effect in new sleeping environments (realize that you will likely not sleep well the first nights in a new place).
- ◆ Don't expect to come back from a road trip well rested!
- ◆ Exercise 30 minutes a day on most days of the week, but NOT within 1-2 hours of bed time.
- ◆ Attempt to get 6-8 hours of sleep a night. Less than 2% of persons can do well with 5- 6 hours a night;

2% of persons actually need 9 hours or a bit more. The more chronic stress you endure, the more sleep your body will require.

Additionally, eat a well-balanced diet during the day and a small snack before bed. Try to maintain an ideal body weight through balanced nutrition and exercise. Fad diets have not been shown effective to prevent fatigue. Fatigue has been associated with obesity and body mass index greater than 45, but it is not certain if weight loss will alleviate fatigue in greatly obese persons. It is not advisable to "mega-dose" on vitamins, as extreme amounts of some can be toxic. Men's or women's multivitamins once a day are good for general health.

There may be a number of herbs supplements and teas that make claims to reduce fatigue or be an "energy formula". It cannot be overstated that while most herbs seen on the health food store shelves make the FDA's Generally Recognized as Safe List, it does not mean studies have been done to prove they help fatigue. Most stimulating or mental sharpening effects from these herb formulas are probably derived from the addition of caffeine, but possibly from dangerous or illegal botanicals like ephedra (Ma-huang). Ginko biloba, and even St. John's wort may be found in other formulations and can cause significant drug interactions with aspirin and popular prescription antidepressants.

If you feel like "I am always getting sick!" remember that it is not uncommon for persons of college age to "catch" 2-4 colds a year. Poor sleep and chronic stress suppress the immune system, adding to this number. Popular immune stimulating herbs such as Echinacea should not be used more than 6-8 weeks - for short-term supportive care of colds, flu, and bladder infections. Longer or continuous use of these products can be deleterious to the immune system.

Finally, and perhaps the most difficult for an eager and motivated college student, is to defer or delegate commitments, and saying, "No, I'm really sorry," to getting involved when you are committed to your limit. Remember saying "No," is not a sign of weakness or laziness, it is in your best health interest to "pass" on commitments/proposals once in a while.