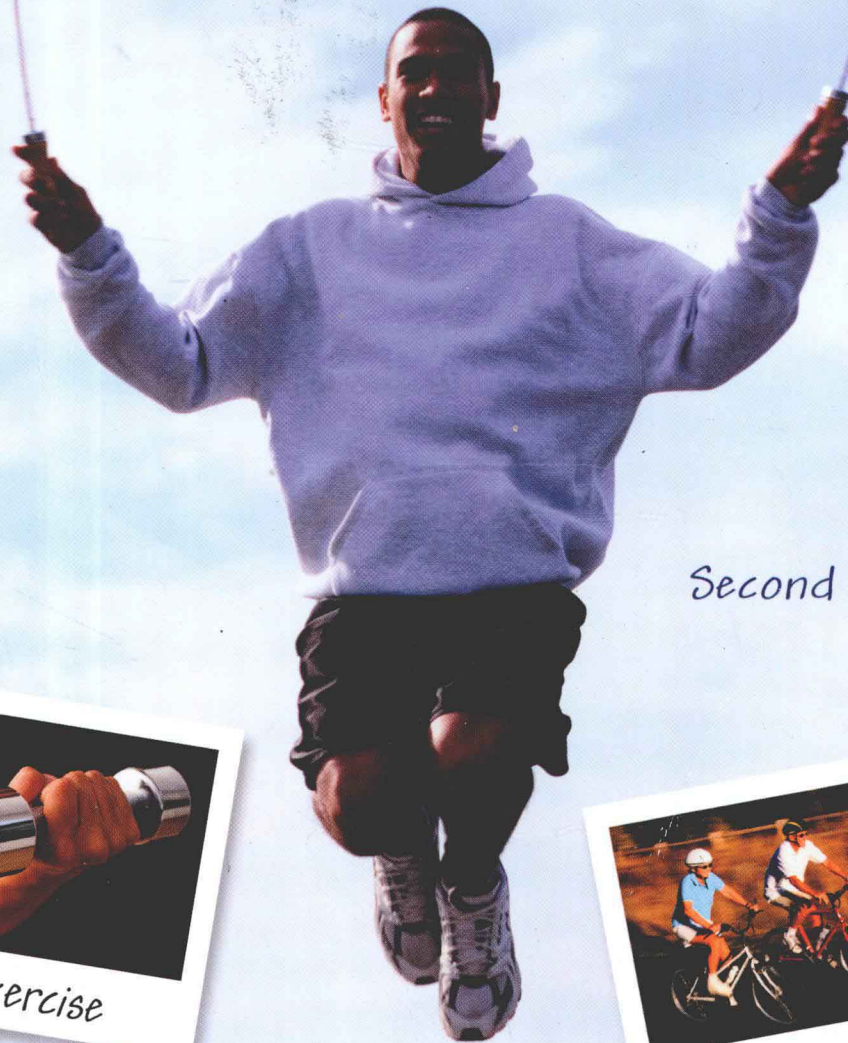
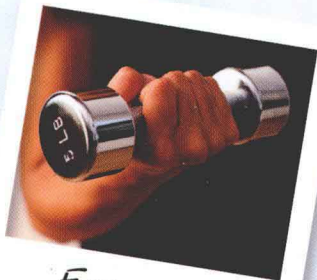


# Health and Fitness

*A Guide to a Healthy Lifestyle*



*Second Edition*



*Exercise*



*Lifestyle*



*Fitness*



*Awareness*

**Laura Bounds  
Dottiedee Agnor  
Gayden Darnell  
Kirstin Brekken Shea**

# **Health and Fitness**

## **A Guide to a Healthy Lifestyle**

Second Edition

**Laura E. Bounds, M.S., CHES**

*Northern Arizona University*

**Dottiedee Agnor, M.S.**

**Gayden S. Darnell, M.S.**

**Kirstin Brekken Shea, M.S.**

*Texas A&M University*



**KENDALL/HUNT PUBLISHING COMPANY**  
4050 Westmark Drive      Dubuque, Iowa 52002

Cover images © 2003 PhotoDisc, Inc.

Copyright © 2000, 2003 by Kendall/Hunt Publishing Company

ISBN 0-7575-0323-3

All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted, in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the copyright owner.

Printed in the United States of America

10 9 8 7 6 5 4 3 2 1



This textbook is dedicated to the memory of Dr. Emma S. Gibbons, who was a valued member of the Department of Health and Kinesiology at Texas A&M University for 25 years. She fought a 12 year battle with breast cancer and passed away on September 7, 2001.

Dr. Gibbons was known for mentoring students, faculty and staff. She had high expectations of herself and others and had the rare quality of making every individual feel appreciated. As the "glue" that held the Department together, she dedicated her life to the betterment of the department through her vision and perseverance. She lived a life of courage and faith in an attempt to give back to the world, and it is through her wisdom and inspiration that we were able to complete this textbook. Texas A&M University is a much better place because she was here.

A portion of the sales proceeds from this textbook do benefit The Emma Gibbons Endowed College Scholarship Fund.

**"There are only two ways to live your life. One is as though nothing is a miracle. The other is as though everything is a miracle."**

***—Albert Einstein***

**“To laugh often and much; to win the respect of intelligent people and the affection of children;  
to earn the appreciation of honest critics and endure the betrayal of false friends;  
to appreciate beauty, to find the best in others; to leave the world a little better, whether  
by a healthy child, a garden patch or a redeemed social condition; to know even one life  
has breathed easier because you have lived. This is the meaning of success.”**

***—Ralph Waldo Emerson***





---

# Acknowledgments

The authors would like to acknowledge the following individuals for their invaluable contributions in the writing of *Health and Fitness: A Guide to a Healthy Lifestyle*:

Julie Barber, M.S.  
Roger Bounds, Ph.D.  
Kirstin Brekken Shea, M.S.  
William Coady, M.S.  
Tamara Franks, M.A.G.  
Melinda Grant, M.S.  
Janet Hardcastle, M.S.  
Sandra Kimbrough, Ph.D.  
Ernie Kirkham, M.S.

Susan Lowy, M.S.  
Dianne Maddox, M.S.  
Martha Muckleroy, M.Ed.  
Linda Mullen, M.D.  
Jeremy Nelms, M.S.  
Christine Reeves, M.S.  
Teresa Wenzel, M.S.  
Brian Wigley, M.S.  
Nicole Wilkerson, M.S.

We also acknowledge with appreciation the continuing guidance and support from the expert review panel:

Robert Armstrong, Ph.D.  
Danny Ballard, Ed.D  
Susan Bloomfield, Ph.D.  
Maurice Dennis, Ph.D.  
Jerry Elledge, Ph.D.

Margaret Griffith, M.S.  
Linda Mullen, M.D.  
B.E. Pruitt, Ed.D.  
Jack Wilmore, Ph.D.

Special thanks to:

Roger Bounds, Richard Darnell, Kathy Durkin, and Kristin Slagel for their guidance, support, and input.

Without the technical knowledge of Beth Tessandori, M.S., the development of the Powerpoint presentation and the contribution it makes to the text would not have been possible.

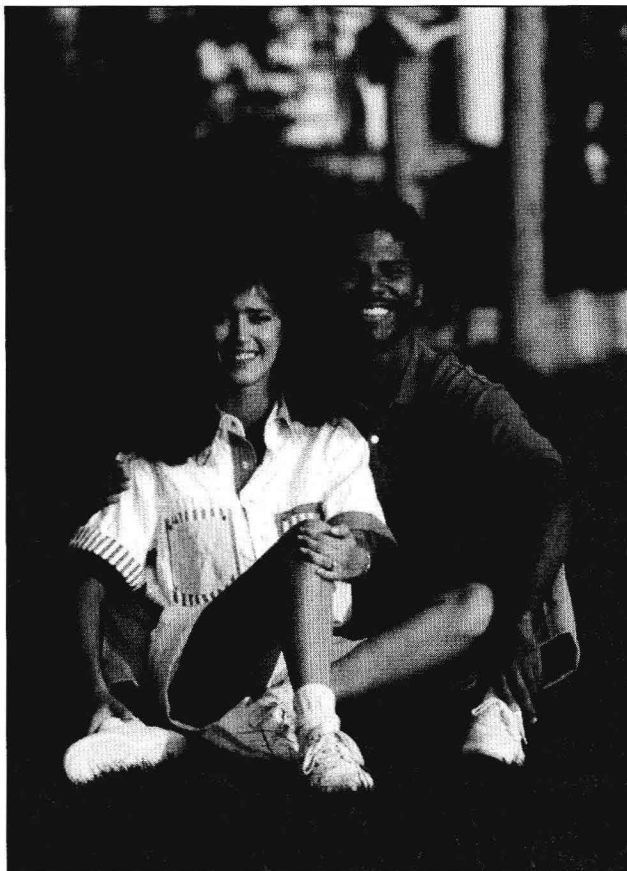


---

# Contents

<i>Acknowledgments</i>	ix
<b>Chapter 1</b> Introduction to Personal Health and Fitness	1
Gayden Darnell, M.S.	
<b>Chapter 2</b> Understanding Health-Related Fitness	19
Kirstin Brekken Shea, M.S.	
<b>Chapter 3</b> Lifestyle Choices and Hypokinetic Conditions	59
Kirstin Brekken Shea, M.S.	
<b>Chapter 4</b> Nutrition	87
Gayden Darnell, M.S.	
<b>Chapter 5</b> Drugs	131
Dottiedee Agnor, M.S.	
<b>Chapter 6</b> Relationships	161
Laura Bounds, M.S., CHES	
<b>Chapter 7</b> Sexuality	189
Laura Bounds, M.S., CHES	
<b>Chapter 8</b> Safety Awareness	233
Dottiedee Agnor, M.S.	
<b>Chapter 9</b> Diseases	249
Laura Bounds, M.S., CHES	
<i>Appendix</i>	271
<i>Glossary</i>	279
<i>Index</i>	289

# Introduction to Personal Health and Fitness



“Take care of your body with steadfast fidelity. The soul must see through these eyes alone, and if they are dim, the whole world is clouded.”

—Johann Wolfgang Von Goethe

## OBJECTIVES

Students will be able to:

- ☐ Define health.
- ☐ Define wellness.
- ☐ List and describe the five components of wellness.
- ☐ Establish a link between preventative behaviors and wellness.
- ☐ Define stress and describe ways in which stress can manifest itself.
- ☐ Introduce general tips to help individuals positively cope with stress.
- ☐ Introduce and explain the significance of *Healthy People 2010: National Health Promotion and Disease Prevention*.
- ☐ List *Healthy People 2010* Focus Areas contained within the *Health & Fitness* text.



**H**ealth is a universal trait. The World Health Organization defines **health** as a “state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity.” Webster’s Dictionary offers “the condition of being sound in body, mind, or spirit; especially: freedom from physical disease or pain...the general condition of the body” as a definition of health. However, health also has an individual quality, it is very personal, and unique.

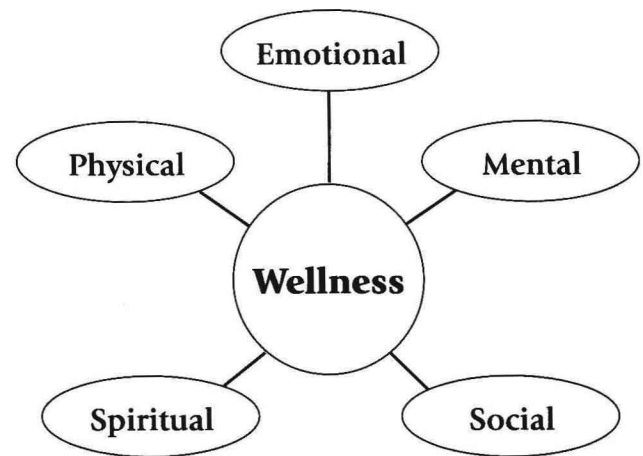
Early on, definitions of health revolved around issues of sanitation and personal hygiene. Today, the definition of health has evolved from a basis of physical health or absence of disease, to a term that encompasses the emotional, mental, social, spiritual, and physical dimensions of an individual. This current, positive approach to health is referred to as wellness. **Wellness** is a process of making informed choices that will lead one, over a period of time, to a healthy lifestyle that should result in a sense of well-being.

### Components of Wellness

Wellness emphasizes an individual’s potential and responsibility for his or her health. It is a process in which a person is constantly moving either away from or toward a most favorable level of health. Wellness results from the adoption of low-risk, health enhancing behaviors. The adoption of a wellness lifestyle requires a focus on choices that will enhance the individual’s potential to lead a productive, meaningful and satisfying life. Assessment of one’s behaviors in the following dimensions is essential to living a balanced life:

- **Emotional.** An individual who is emotionally healthy is able to enjoy life despite unexpected challenges and problems. Effectively coping with life’s difficulties is essential to good health. Negative emotions can affect the immune system and result in chronic stress (see Chapter 3), which in turn can lead to serious illness and potential death.
- **Mental.** The mind has substantial influence over the body. To be healthy, it is important to be able to recognize which thoughts result in smiles and positive feelings and which thoughts cause frowns or muscle tightness and tension.

Figure 1.1  
The Components of Wellness



- **Social.** Social health is an individual’s ability to relate to and interact with others. Socially healthy people are able to communicate and interact with other people—they are respectful and caring of their family, friends, neighbors, and associates.
- **Spiritual.** Spiritual health helps a person achieve a sense of inner peace, satisfaction, and confidence. It gives the sense that all is right with the world. A person’s ethics, values, beliefs, and morals can contribute to their spiritual health.
- **Physical.** Physical health is comprised of cardiovascular fitness, muscular strength and endurance, flexibility (Chapter 2), and body composition (Chapter 4). It is the component most often associated with a person’s health.

Through wellness, an individual manages the range of lifestyle choices. How a person chooses to behave with regard to spirituality, fitness (Chapter 2), sexuality (Chapter 7), alcohol and drug use (Chapter 5), and nutrition (Chapter 4) will determine, to a great degree, how ‘well’ that individual will live.

### Wellness and Stress

**Stress** is the nonspecific response to demands which are placed on the body. ‘Nonspecific

MarathonFoto



response' alludes to the production of the same physiological reaction regardless of the type of stress placed on the body. Stress reactions are unique to each individual. The same event might be perceived as highly stressful and draining to one person but simply stimulating and exciting to another person. Stress reactions are a person's physical and emotional responses to stimuli. These responses can be positive or they can be negative. **Eustress** is a positive stress that produces a state of well-being. It is a healthy component of daily life. Examples of activities that might initiate a positive stress response include competitive sports, dating, the birth of a baby, or a long awaited vacation. Eustress can help channel nervous energy into a top notch performance. **Distress** is negative stress. It is a physically and mentally damaging response to the demands placed upon the body. Distress is associated with changes that interrupt the natural flow of life. Schoolwork, loss of a job, or moving away from family are examples of activities that may produce a negative stress response in some individuals. While certain forms of stress are not only normal, but also necessary in everyday life, the results of continual stress or inappropriately managing stress can cause disruptions (sometimes severe) in an individual's emotional, mental, social, spiritual, and/or physical health.

There are typically four ways in which stress can manifest itself:

#### 1. Emotionally

- Do you always feel rushed, without enough time to get all that is needed done well or done at all?

- Do you find it difficult to relax?
- Are you irritable and moody, or easily angered?
- Do you feel helpless or hopeless?
- Do you want to cry for no apparent reason?
- Is it difficult for you to listen or pay attention to your friends without being distracted?
- Is it hard for you to fall asleep even on days you are exhausted?
- When you do fall asleep, is it difficult to stay asleep?

#### 2. Mentally

- Are you indecisive in many areas of your life?
- Is it difficult for you to concentrate?
- Do you regularly have bad dreams or nightmares?
- Do you have negative thoughts, including suicidal thoughts?

#### 3. Behaviorally

- Has your appetite changed so that you have gained or lost significant amounts of weight?
- Are you neglecting yourself/your appearance?
- Have you curtailed social activities?
- Have you taken to substance abuse—i.e. cigarette smoking, drug use, or excessive alcohol or coffee intakes?

#### 4. Physically

- Do you have an increased heart rate or blood pressure?
- Can you feel your own heart beat?
- Do you feel out of breath or have tightness in your chest?
- Do you suffer from frequent headaches, and muscle aches due to chronic tension?
- Is it difficult for you to digest food—leading to nausea or diarrhea?
- Do you suffer from frequent attacks of infections such as influenza or sore throats?

Stress is not the cause of illness but when it goes on for long periods of time or is particularly irritating it can become harmful by weakening an individual's immune system and increasing that person's risk of getting sick. There are a number of ways to control stress. However, what works for one person will not necessarily be helpful to someone else. It is important to recognize the stressor

and determine the most effective way(s) to relieve, reduce, or eliminate that particular stressor. Another key to successfully managing stressors is to use a strategy that produces positive results, rather than a strategy that creates additional stress in an individual's life. Also, to be successful with stress management, give a particular stressor only the amount of energy it warrants—do not give a “10 cent stressor \$10 worth” of time or energy. The following are general tips that help maintain a healthier lifestyle and can prepare an individual to cope with many of the stressors found in everyday life.

1. Deal with the cause:  
Finish the task, talk to the person, fix the tire, write the letter, make the call—do what needs to be done to deal with the situation. The longer a situation gets put off, the more stress it can create.
2. Put the situation into perspective:  
How important is it really? How important will this be tomorrow, in six months? Most situations that tax physical/mental energies will soon be inconsequential and forgotten. Determine if anything can be done about the situation or is it a situation that calls for acceptance?
3. Pace yourself:  
No one can be in “high gear” all the time. Too often individuals stop to “smell the roses” only after the first accident or heart attack. Set short and intermediate goals—reward yourself upon reaching these goals.
4. Laugh at life and at yourself:  
Humor is a wonderful tool. Laughing is internal jogging! She or he who laughs...lasts! See the humor in people and the absurdity of situations. Read the “funny pages.”
5. Develop quality relationships:  
Seek social and emotional support systems—individuals who care, love, and will listen to you. Express feelings constructively. Be there for others and allow others to be there for you in the good times and in the bad times.
6. Time management needs to be life management:  
Look at goals and responsibilities from a bigger perspective, this can help with decision making. Streamline activities by breaking big, imposing jobs into small components. Seek assistance when it is needed, don't try to do everything yourself.
7. Look at situations and people in a different light—try an attitude adjustment:  
Is your perception of the situation, event, or person correct? Is there another way to handle things or is there another possible way to answer the problem? Go easier on yourself and on others. It is unreasonable to expect perfection from yourself or from others. Perfection is a “moving target” and causes constant stress. Take care of the things you can, don't worry about the things that are beyond your control.
8. Balance fun and responsibility:  
Family, society, and community encourage and command constant work and responsibility. It is important to contribute and to meet responsibilities, but it is also important to find enjoyment and fun in life as well. Do something you find enjoyable on a regular basis and don't feel guilty!
9. Exercise and eat sensibly:  
Exercise is one of the best stress-busters. Schedule exercise into your life. Walk, bike, swim, stretch, and recreate. Good food in proper proportions is also essential to good health and is an excellent way to reduce the negative effects stress may have on your life.

## Healthy People 2010

There are four major factors that influence personal health: heredity, environment, access to professional health care personnel, and personal behavior.

Personal behaviors that result in prevention of disease or premature death are the primary focus of this text. Prevention is a key factor in promoting wellness. The importance of prevention is made clear in *Healthy People 2010*. *Healthy People 2010* was first developed in 1979 as a *Surgeon General's Report*. It has been reformulated since 1979 as *Healthy People*, and *Healthy People 2000: National Health Promotion and Disease Prevention*. The original efforts of these programs were to establish national health objectives and to serve as a base of knowledge for the development of both state level and community level plans and programs to improve the nation's overall health. Much like the programs *Healthy People 2010* is based on, it was

developed through broad consultation programs and the best and most current scientific knowledge in the public and private sectors. It is also designed in a way that will allow communities to measure the success rates, over time, of the programs they choose to implement.

*Healthy People 2010* has two core concerns. The first concern or goal is to help all individuals to increase not only the quantity of their lives, but also to improve the quality of their life. A second goal of this program is to eliminate health disparities among the different segments of the nations' populations. In an attempt to meet these core goals, *Healthy People 2010* has 28 focus areas—each with a concise goal statement that is designed to frame the overall purpose of each of the 28 focus areas. For example:

- Focus Area 3. Cancer  
Goal—Reduce the number of new cancer cases as well as the illness, disability, and death caused by cancer.

Each of the chapters in *Health & Fitness: A Guide to a Healthy Lifestyle* corresponds to one or more of the focus areas within *Healthy People 2010*. The chapters of this text and the corresponding focus areas of *Healthy People 2010* are as follows:

#### **Chapter 1—Introduction to Personal Health and Fitness**

- Health Communication
- Mental Health and Mental Disorders

#### **Chapter 2—Understanding Health-Related Fitness**

- Physical Activity and Fitness

#### **Chapter 3—Lifestyle Choices and Hypokinetic Conditions**

- Arthritis, Osteoporosis, and Chronic Back Conditions
- Diabetes
- Heart Disease and Stroke
- Mental Health and Mental Disorders
- Cancer

#### **Chapter 4—Nutrition**

- Mental Health and Mental Disorders
- Nutrition and Overweight

#### **Chapter 5—Drugs**

- Chronic Kidney Disease

- Educational and Community-Based Programs
- Environmental Health
- Oral Health
- Respiratory Diseases
- Substance Abuse
- Tobacco Use

#### **Chapter 6—Relationships**

- Health Communication

#### **Chapter 7—Sexuality**

- Family Planning
- Health Communication
- HIV
- Immunization and Infectious Disease
- Maternal, Infant, and Child Health
- Sexually Transmitted Diseases

#### **Chapter 8—Safety Awareness**

- Injury and Violence Prevention
- Occupational Safety and Health

#### **Chapter 9—Diseases**

- Cancer
- Diabetes
- HIV
- Immunization and Infectious Disease

Figure 1.2

How to Use Healthy Behaviors and Healthy Decision Making to Add Years to Your Life

Researchers at the Human Population Laboratory of the California Department of Health published the following list of health related behaviors that have been associated with good health and a long life. These behaviors include:

1. Regular exercise
2. Adequate sleep
3. A good breakfast
4. Regular meals
5. Weight control
6. Abstinence from smoking and drugs
7. Moderate use of (or abstinence from) alcohol

It was shown that by following six of the seven listed behaviors not only is an individual's quality of life greatly improved, but also, men could add 11 years to their lives and women could add seven years to their lives.





## Summary

Health is “a state of complete physical, mental, and social well-being and not merely the absence of disease or infirmity” according to The World Health Organization. By definition, health is a universal trait. Due to the fact that personal behaviors are one of the four major factors that influence a person’s lifespan and quality of life, health also takes on a very individual and unique quality.

The idea of wellness is an individual based approach to health. Wellness is grounded in behavior modification strategies that result in the adoption of low-risk, health enhancing behaviors. By balancing the five components of wellness—emotional, mental, social, spiritual, and physical—a person can, to some degree, prevent disease and premature death.

Each decade, since the 1979 *Surgeon General’s Report*, the nation has refined its health agenda—first through *Healthy People*, then through *Healthy People 2000: National Health Promotion and Disease Prevention* and currently through *Healthy People 2010*. When an attempt is made to understand the two goals of *Healthy People 2010*:

- Goal 1—Increasing the quantity and quality of life
- Goal 2—Eliminating health disparities

and connect the focus areas of this program with these goals, the overwhelming importance of prevention in promoting an individual’s level of wellness is made clear.

## References

- Ballard, Danny. (2002). “A Dozen Ways to Stress-Proof Your Life.”
- Corbin, Charles B., and Lindsey, Ruth. (1994). *Concepts of Physical Fitness*. McBrown.
- Floyd, P., Mims, S., and Yelding-Howard, C. (1998). *Personal Health: Perspectives and Lifestyles*. Morton Publishing Co.
- Hahn, Dale B., and Payne, Wayne A. (1998). *Understanding Your Health*. McGraw-Hill.
- <http://ahha.org>
- <http://www.health.gov/healthypeople>
- <http://healthed.tamu.edu/stress.htm>
- <http://www.indiana.edu/~health/stres.html>
- <http://who.int/aboutwho/en/definition.html>
- <http://www.med.nus.edu.sg/pcm/stress>
- <http://www.cdc.gov/nchs/data/hp2k99.pdf>
- <http://www.m-w.com/dictionary.htm>
- Hyman, B., Oden, G., Bacharach, D., and Collins, R. (1999). *Fitness for Living*. Kendall-Hunt Publishing Co.
- Pruitt, B.E. and Stein, J. (1999). *Health Styles*. Allyn & Bacon.

## Activities

### In-Class Activities

- Class Pictures
- What’s in a Name

### Notebook Activities

- Stress Journal
- If I Had It to Do Over
- One Birthday Is Not Enough

# Class Pictures

**Concept/Description:** In groups, one member will draw pictures while the other group members try to guess a key word or phrase.

**Objective:** Be the first group to guess the key word or phrase.

**Materials:** Draw This cards  
Paper  
Pens or pencils  
Chalkboard  
Chalk

- Directions:**
1. Divide the class into groups of five or six and give each group some scrap paper. Each group needs pens or pencils.
  2. Each member of the group counts off.
  3. The teacher sits in the center of the room and when ready, asks all the students numbered one to come look at one of the Draw This cards.
  4. Students then quickly return to their seats and begin drawing clues so the group members can guess the word or phrase that was on the teacher's card. Note: No words, letters, or numbers may be drawn. No talking is permitted by the person drawing.
  5. Group members try to guess what the picture is. They call out their guesses until one is correct or until another group guesses first.
  6. The first group to get the correct answer is the winner of the round, and that group receives one point.
  7. Keep score on the chalkboard.
  8. Continue playing by calling up student two, then three, and so on until everyone has had a chance to draw.
  9. The team with the most points is the winner.



## **“DRAW THIS” Cards**

<b>a wedding</b>	<b>shopping</b>
<b>kissing</b>	<b>going to the movies</b>
<b>an argument</b>	<b>fast food</b>
<b>a baby crying</b>	<b>talking on the phone</b>
<b>a person listening</b>	<b>arguing with parents</b>
<b>a fist fight</b>	<b>best friends</b>

# **"DRAW THIS" Cards (Make Your Own)**