NAMI Hearts & Minds

National Alliance on Mental Illness

A Roadmap to Wellness for Individuals Living with Mental Illness

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The National Alliance on Mental Illness (NAMI) is the nation's largest grassroots mental health organization dedicated to improving the lives of individuals and families affected by mental illness. NAMI has more than 1,100 affiliates in communities across the country who engage in advocacy, research, support and education. Members of NAMI are families, friends and people living with a mental illness such as major depression, schizophrenia, bipolar disorder, obsessive-compulsive disorder (OCD), panic disorder, posttraumatic stress disorder (PTSD) and borderline personality disorder.

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NAMI Hearts & Minds is an online wellness initiative. This booklet contains much of the information available, but the most up-to-date content, as well as fact sheets on wellness issues, are available at www.nami.org/heartsandminds.

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Intro

The NAMI Hearts & Minds program is an educational wellness initiative promoting the idea of wellness in both mind and body. Generally, wellness is an ongoing process of learning about, and making choices toward, a more successful life.

Engaging in a wellness effort can make a huge difference in the quality of our lives. One study, published in the *Journal of the American Medical Association*, showed that taking a wellness approach could result in a 17 percent decline in total medical visits and a 35 percent decline in medical visits for minor illness.

Wellness is about the individual; you can decide what parts of your life you would like to change and you can determine your own level of success.

Why Hearts & Minds Is Important

People who live with mental illness are often at higher risk for heart illness and much of that risk is preventable: knowledge is power. People who live with mental illness are more likely to have classic heart risk factors such as cigarette smoking, obesity, diabetes, elevated cholesterol and hypertension (high blood pressure)—all of which can be made worse by some antipsychotic medications.

Certainly, living with mental illness can be quite a challenge already. NAMI Hearts & Minds offers a wealth of information. You do not need to figure this all out at once—NAMI Hearts & Minds will show you how to take it one step at a time. You are worthy of a happy, healthy and long life. Knowing the risks will help you make informed choices that can make that happen. When you are ready to work on one of these areas, focus and get going.

Major preventable risks for people living with mental illness:

- Smoking
- Obesity
- Diabetes
- Elevated cholesterol
- High blood pressure (also called hypertension)

These are risk factors that can be modified. With attention, you can live longer and enjoy a higher quality of life. Other risk factors, like age, gender, family history and even a history of psychological trauma, cannot be changed but need to be understood to assess your risk and the opportunities for prevention.

Medical Self Advocacy

Many people living with mental illness do not have access to quality medical care that meets all of their health care needs. Often, when someone tells a health care provider that he or she is taking antipsychotic medications or lives with a serious mental illness, a person will receive a lower quality of care or less attention. NAMI's Schizophrenia Survey demonstrated that many people find that even informing a health care provider of an illness worsened their care. The survey, wherein participants shared their mental health diagnoses, showed that nearly half (49 percent) of those surveyed say that doctors took their medical problems less seriously once they learned of their diagnosis; an additional 39 percent of those who responded say that their of schizophrenia made it more difficult to get access to other medical care.

It is important for people who live with mental illness to advocate for their own health care. Think of your health care providers as partners in your care. Make sure that you are communicating your concerns regarding your mental illness, but don't forget that think about the rest of your body and what you can be doing to prevent other medical conditions as well.

Engaging in Primary Health Care

Health care providers are a key part in improving and maintaining overall wellness. They have access to tests and information that can help identify issues and areas of need. Below are steps you can take to ensure the best from your primary health care visits.

- Be prepared. Before your health care appointment, make a list of concerns that you want to bring up with your provider and note which are the most important. Don't be afraid to ask follow-up questions if you don't completely understand your provider's responses; your health care provider is there to help you understand how to be healthy. You may want to keep a medical notebook where

you can jot down questions or thoughts that come up in between visits, track side effects or keep a chart listing medication refill dates.

- Do your research. If you have been diagnosed with a specific medical condition, learn as much as you can about it before your next appointment, being careful to avoid self-diagnosis. Make sure that you are only reading information from credible sources. A good place to start is http://health.nih.gov/. Also, learn additional information on mental illness medications from the NAMI Web site and from the National Institute of Mental Health (NIMH) at www.nlm.nih.gov/medlineplus/druginformation.html.
- Don't be embarrassed. If you feel shy about addressing a problem with your health care provider, don't forget that you are not the first person to experience this; he or she has probably heard it all before. Just like any good relationship, trust and honesty are very important. The more open you are, the better the chance is that your health care provider will able to partner with you on your road to health and offer you the best guidance.

Heart Disease, Family History and Risks

If you have a family history of heart health issues and smoking, you will need to adapt your lifestyle. You should learn what risks factors your family member had, what risks you yourself may face and what you can do to help prevent heart disease. Knowing your family history of heart disease is very important; it is a risk factor that cannot be controlled. Major risk factors that cannot be changed include:

Increasing age: About 82 percent of people who die of heart disease are age 65 or older.

Gender: Men have a greater risk of heart attack than women, and they have attacks earlier in life.

Heredity (including race): Those with a family history of heart disease are more likely to develop it themselves. African Americans can have more severe high blood pressure and a higher risk of heart disease. Heart disease risk is also higher among Latinos, American Indians, Pacific Islanders, Alaska Natives and some Asian Americans. This is partly due to higher rates of obesity and diabetes in these populations.

History of trauma: The Adverse Childhood Experience (ACE) Study, which looks at long-term health and wellness of children who live with

psychological trauma, found that traumatic experiences are substantial risk factors for several chronic conditions including heart disease and tobacco use.

Major risk factors that can be changed include:

Use of tobacco: Smokers' risk of developing heart disease is two to four times that of nonsmokers. Cigarette smoking also acts with other risk factors to greatly increase the risk for heart disease. Exposure to other people's smoke increases the risk of heart disease even for nonsmokers.

Obesity and weight: People who have excess body fat, especially around the waist, are more likely to develop heart disease, even if they have no other risk factors. Excess weight increases the heart's work; thereby, potentially raising blood pressure, blood cholesterol and triglyceride levels. Being overweight may also lower HDL (good) cholesterol levels. It can also make diabetes more likely to develop.

Diabetes mellitus: Diabetes seriously increases the risk of developing cardiovascular disease. Even when glucose levels are under control, diabetes increases the risk of heart disease and stroke, but the risks are even greater if blood sugar is not controlled. At least 65 percent of people with diabetes die of some form of heart or blood vessel disease.

High blood cholesterol: As blood cholesterol rises, so does risk of coronary heart disease. Learn more about cholesterol by exploring the NAMI Hearts & Minds Web site further.

High blood pressure: When high blood pressure exists with other risk factors such as obesity, smoking, high blood cholesterol levels or diabetes, the risk of heart attack increases significantly.

Physical inactivity: An inactive lifestyle is a risk factor for heart disease. Physical activity can help control blood cholesterol, diabetes and obesity, as well as help lower blood pressure.

Along with family history and an assessment of these and other factors, a health care provider will be better equipped to determine and address cardiac risk.

Integrated Treatment and Co-occurring Disorders

Many people living with mental illness are also living with substance abuse disorders and other medical conditions. The need for integrated health

care is even more critical for individuals with these co-occurring, or dual-diagnosis, conditions. The mental health and substance abuse treatment systems historically have had different cultures and expectations and didn't get too involved with each other. Now it is finally clear that in order to appropriately treat individuals, care should be integrated. The system of care for people with dual diagnosis is learning to get more integrated and more creative while improving the ability of mental health professionals to screen and intervene with substance abuse problems and vice versa.

There are many great resources available to help you understand this complex issue. A great place for information on this effort is U.S. Substance Abuse and Mental Health Services Administration (SAMHSA) Web site on Co-Occurring Center for Excellence at https://coce.samhsa.gov.

Culturally Competent Care

America's population is rapidly becoming more diverse. The cultural competence of our health care providers is important to enhancing positive health care outcomes. Culturally competent care brings together a combination of attitudes, skills and knowledge that allows health care providers to better understand and take care of people whose cultural backgrounds, sexual orientation, religious beliefs or gender are different from their own.

Medical care that lacks cultural competence has caused well-documented disparities in access to services and in quality of care for many individuals and communities. State health care systems' efforts to improve the cultural competence of services were graded in the *NAMI Grading the States 2009* report. Some states demonstrated more sophisticated thinking about the issue than others. It is clear that the mental health care system has a long way to go to equip a workforce to be culturally competent. NAMI and other advocates must continue to press for a health care workforce that meets the needs of all who rely on the system for care. You should be open about any personal, cultural, spiritual or religious issues. You should inform your provider if you have certain cultural needs or preferences to support your own unique recovery.

People from diverse backgrounds face additional heart health challenges. For example, there is a higher rate of diabetes among Asian American, African American, American Indian and Latino individuals. This additional risk is important to know before planning to proactively manage weight through diet and exercise, especially if taking antipsychotic medications as a part of a treatment plan. Antipsychotic medications differ widely in how much they increase the risk of diabetes. See the chart on page 27 for an independent assessment of the risk by medication and visit the American Diabetes Association and American Psychiatric Association (ADA/APA) Guidelines at http://care.diabetesjournals.org/content/27/2/596.full.

There is a great deal more to learn about how culture and biology relate to psychiatric medication dosages. The number of people from diverse racial and ethnic backgrounds in research has been historically low, which hampers efforts to address this important issue. There is some evidence that Asians may require lower doses of antipsychotics. There is also evidence that African Americans have historically been given higher doses of antipsychotics. The right medicine dosage cannot yet be determined based on race or ethnicity. Diet and alternative treatments are also an area of interest with culturally competent health care, and there is a great deal more to learn. For example, Ginko Biloba, which is used often in Hispanic food, can have effects on the metabolism of other medicines such as anticonvulsants (seizure medicines), antidepressants and even blood thinners. You should be talk openly to your health care providers about your diet and medicines you are taking.

Smoking Cessation

People living with mental illness have a very high rate of smoking. A study by the *Journal of the American Medical Association* reported that 44.3 percent of all cigarettes in America are consumed by individuals who live with mental illness and/or substance abuse disorders. This means that people living with mental

illness are about twice as likely to smoke as other persons. A positive note is that people who live with mental illness had substantial quit-rates, which were almost as high as the group without mental illness. NAMI has led many changes in our mental health system—getting access to the tools to quit smoking is a way to improve the quality and quantity of life. Improving lives is a new advocacy pursuit.

The Connection between Mental Illness and Smoking

There is no one single, certain reason why so many people who live with mental illness smoke. It may be a combination of brain effects, psychological effects and the social world in which we live. From a brain-based perspective, research is being done to determine if and how nicotine is involved in some of the brain's memory functions. If nicotine is a factor, then this could explain why so many people living with an illness like schizophrenia or other illness involving cognitive deficits may smoke. Even though smoking is thought to enhance concentration and cognition, the effects are short in duration.

While we still have a lot to learn about why people smoke, there is plenty of information to support the serious health risks of smoking. So while there may be good reasons why you were attracted to smoking, the key is to figure out ways to increase rates of quitting. Nicotine isn't a health problem on its own, but when smoked and combined with hundreds of other chemicals that are present in cigarettes, the practice of smoking is toxic.

The Reality

People die from smoking-related illnesses. Every year, smoking kills about 200,000 people who live with mental illness. Smoking harms nearly every organ of your body and diminishes your overall health. Smoking is a leading cause of cancer and of cancer-related death.

Inhaled cigarette smoke is made up of 4,000 chemicals, including cyanide, benzene, ammonia and carbon monoxide to name a few. There is no safe tobacco product, so switching to a smokeless or chew product will not eliminate your risk of smoking-related diseases.

Smoking also causes heart disease, stroke and lung disease. With the increased risk of heart disease from second-generation antipsychotic medications (SGAs), individuals living with mental illness must try to quit. For more information on cancer risks, visit www.cancer.gov.

The mental health community is finally waking up to the fact that smoking is a true health hazard, and people need to quit in order to live longer. More mental health care facilities are going smoke-free, and NAMI is advocating for access to smoking cessation programs.

Effects on Symptoms and Medications

Research shows that people living with mental illness do not have worse symptoms after they quit. If you are a smoker and you quit, you can usually get the same treatment results from lower doses of psychiatric medications. Smoking increases the breakdown of medicines in your body, so smokers need to take higher doses to get the same results as someone who does not smoke. Without cigarettes you may need to take less medication. An additional benefit is that a dose reduction will likely reduce side effects of medicines, such as weight gain and other side effects.

Smoking and Diabetes

It is very hard to live with more than one medical problem. Diabetes is a big issue for many people who live with mental illness and, like smoking, it increases the chances of early death. The two problems together are doubly dangerous. For instance, smoking and diabetes increases your chances of having a heart attack 11 times higher than the general population.

Benefits of Quitting

It often takes multiple attempts to quit smoking; don't give up if your first try is unsuccessful. There are immediate and long-term benefits to quitting smoking. Several benefits you will notice right away include:

- your sense of taste will improve;
- your sense of smell returns to normal;
- your breath, hair and clothes will smell better;
- your teeth and fingernails stop yellowing;
- you will save a lot of money;
- you will have more energy and time for ordinary activities; and
- you will be more acceptable socially with nonsmokers.

Within minutes of smoking the last cigarette and beyond, the body begins to restore itself.

Time after quitting	Benefits to your Health
20 minutes	Your heart rate and blood pressure drop
12 hours	Carbon monoxide level in your blood drops to normal
Two weeks to three months	Your circulation improves and your lung function increases
One to nine months	Coughing and shortness of breath decrease; lung function normalizes
One year	Excess risk of heart disease is cut in half
Five years	Your stroke risk is that of a nonsmoker
10 years	Lung cancer death rate is half of a smokers
15 years	Risk of heart disease is that of a nonsmoker

Tools for Success: Alternatives, Treatments and Medications

To quit permanently, you may need to rely on more than one method at a time. Methods may include step-by-step manuals, phone support, self-help classes, counseling, nicotine replacement therapies (NRT) and/or prescription medications.

There are several products scientifically proven to help double or triple your odds of quitting for good. However, it is possible that you will feel some effects of nicotine withdrawal. Getting temporary nicotine in your system while quitting can help you feel more comfortable and in control as you start your tobacco-free life.

Nicotine Replacement Therapies (NRT)

NRT is a combined approach that includes a smoking-cessation product plus behavior change and support. If used properly, NRT can help double or triple your chances of quitting. All NRT products have side effects, so before deciding on an option, know the risks and benefits of each option. Use caution if you have heart disease or a history of heart disease and consult your doctor before taking medication.

Over-the-counter Options	
Nicotine Patch	Patches are placed on the skin and supply a small, steady amount of nicotine to the body. Patches contain varied levels of nicotine, and the user reduces the dose over time.
Nicotine Gum	Gum is chewed to release nicotine. Gums also have varied concentrations to allow the user to reduce the amount of nicotine over time.
Nicotine Lozenges	Lozenges look like hard candy, release nicotine and dissolve in the mouth.
Prescription Options	
Nicotine Inhaler	Allows the user to inhale nicotine through a mouthpiece at a predetermined dose.
Nicotine Nasal Spray	Allows user to spray nicotine straight into the nose. Can be used for fast craving control, especially for heavy smokers. *Caution is urged if you have high blood pressure because your condition could worsen. Also be aware if you have a heart condition, asthma or glandular problem (i.e., insulin dependent diabetes).*
Zyban Generic: Bupropion	Helps reduce nicotine withdrawal and the urge to smoke. Can be used safely with nicotine replacement products. Side effects: seizures and mood changes (Some people should not take Zyban including those who have ever had a seizure, a head injury, take some antidepressants [MAO inhibitors], take other medications containing bupropion or have/had an eating disorder.
Chantix Generic: Varenicline	Helps ease nicotine withdrawal symptoms and blocks the effects of nicotine from cigarettes if the user resumes smoking. Side effects: change in mood (Reports of serious symptoms have been made claiming agitation, depressed mood, feeling hostile, changes in behavior, impulsive/disturbing thoughts or individuals thinking about hurting themselves or others.) *Tell your doctor immediately if you have worsening of depression or other mental health issues as they could worsen while talking this medication.*

Substance Abuse and Alcoholism

According to the *Journal of the American Medical Association*, approximately 50 percent of individuals living with severe mental illness are affected by substance abuse. About 37 percent of individuals with alcoholism and 53 percent of individuals with drug addictions have at least one serious mental illness.

More deaths, illnesses and disabilities stem from substance abuse than from any other preventable health condition. Today, one in four deaths is attributable to alcohol, tobacco and illicit drug use. People who live with under-treated or untreated mental illness and substance dependence have higher risk of all bad outcomes including injuries, medical problems, incarceration and death.

Alcohol dependence is what people think of when they think of alcoholism. Alcoholism is a disease that occurs when a person has a strong need or urge to drink, the inability to stop drinking and/or physical dependence on the alcohol, including withdrawal symptoms or the need to drink greater amounts of alcohol to experience a high.

Recovered, or sober, individuals report that the craving an alcoholic feels for alcohol can be as strong and the need for food or water. An active alcoholic will drink despite serious family, health or legal problems.

Drug abuse is the habitual use of illegal, prescription or over-the-counter drugs for purposes other than they were intended. Drug abuse may substantially injure the user and interfere with social, physical, emotional and job-related functioning.

Although initial drug use may be voluntary, drugs have been shown to alter brain chemistry, which interferes with an individual's ability to make decisions and can lead to compulsive craving, seeking and use. This then becomes a substance dependency.

The impact of drug abuse and dependence can be far reaching, affecting almost every organ in the human body.

Getting Help

There are many resources and supports available for conquering addiction. As you work to put a plan in place, educate yourself about pharmaceutical options, treatment facilities, outpatient behavioral treatment and community-based social support. There are many ways to get sober and no one right path. But recovery is a process that is often strengthened by self-help support.

The self-help recovery movement is strong in the substance-abuse community. Alcoholics Anonymous (www.aa.org) is a free, 12-step organization that has helped millions of individuals. Al-Anon (www.al-anon.alateen.org) is a program for families to help them learn detachment and to separate their responsibility from that of the addicted person. Al-Ateen (www.al-anon.alateen.org) is a program geared for adolescents who have addicted family members. Smart Recovery (www.smartrecovery.org) is also a sobriety support program that does not share the religious focus of AA, but is rooted is science. Double Trouble groups (www.doubletroubleinrecovery.org) offer self-help support for individuals living with both mental illness and addiction.

Some self-help groups are sophisticated enough to help people achieve sobriety while accepting a psychiatric condition and the need for psychiatric medications. However, some AA groups have historically discouraged dually diagnosed persons from taking psychiatric medications. It can be useful to shop the meetings in your area to find one that best meets your individual needs. If you are taking medications for a mental illness and utilize AA support, be sure that your sponsor understands and respects your medication choices.

Your best ally in identifying help may be your primary care provider. He or she can refer you to specialized care by recommending someone with additional addiction training or to a treatment facility. Medication and behavioral therapy are often included in a comprehensive treatment program. Publicly funded treatment centers are available. For more information on these facilities in your state, please call (800) 662-HELP or visit www.findtreatment.samhsa.gov.

Healthy Eating

When we refer to our diet, we are referring to what we eat. We all need nutrition to support our bodies. A poor diet equals poor health, contributing to obesity, metabolic syndrome and diabetes—conditions

that many people living with mental illness are at high risk of developing.

Food doesn't just feed our bodies, it also nourishes our minds. Carbohydrates, fats, proteins, vitamins and minerals in food are essential parts of any diet that provide specific benefits for the body. A lack of any of these nutritional components can lead to physical difficulties, increased mental-health problems and even changes in brain functioning.

Nutrition is important for everyone. If you are living with mental illness, eating well is especially important for you, because what you eat can affect your daily life, mood and energy level. Healthy eating is not about being thin or deprivation. Healthy eating is about feeling good, having more energy, participating in your recovery and mapping out your future. Simply put, healthy eating is one of the best things you can do to improve wellness.

Learn more about healthy eating and how you can choose foods that are right for you. Use the guidelines and tips in NAMI Hearts & Minds to create and maintain a satisfying, healthy diet.

The Pyramid

Dietary guidelines set by the USDA state that a healthy diet is one that emphasizes fruits, vegetables, whole grains and fat free or low fat milk products. A healthy diet should include lean meats, poultry, fish, beans, eggs and nuts. Be sure to limit saturated fats, trans fats, cholesterol, sodium and added sugars. Learn more about the U.S. government's guidelines by reviewing the food pyramid.

MyPyramid.gov
STEPS TO A HEALTHIER YOU

By following the guidelines above, you will ensure that you will be consuming the appropriate amounts of carbohydrates, proteins, vitamins and minerals to help your body works efficiently.

Calories and Weight Loss

A calorie is a unit of energy. Depriving the body of needed energy impairs your mood and your ability to think clearly. People who consistently eat less than their bodies need may begin to experience irritability, lethargy, a lack of concentration and may feel sad and hopeless as a result of a poor diet. In addition, people who consume more calories than they need will always gain weight.

Are you concerned about your weight? If so, it is important to know that your weight is determined by the number of calories you ingest minus the number of calories you burn—period. If you consume 2,500 calories a day but only burn 2,000 through your daily activities and exercise, you will gain weight.

To help figure out how many calories you burn a day, consult with your health care provider, a nutritionist or access an online calculator. Once you have this information, you can use it to help kick-start weight loss, especially if used along with a food journal, which you will read about later.

There are 3,500 calories in one pound of body fat. In order to lose weight, a person must cut calories from his or her daily diet. Cutting 500 calories a day will result in the loss of one pound per week. Never consume less than 1,200 calories a day. Always consult with your doctor before drastically changing your diet.

If you are overweight, you will benefit from even the smallest weight loss. Losing excess body weight can reverse or prevent diabetes, lower blood pressure, cholesterol and triglyceride levels and improve sleep apnea and other sleep problems.

Food Labels

Food labels are very important in determining what ingredients and nutrients are in your food. While they can be confusing (and sometimes even misleading), the NAMI Hearts & Minds program will help you inform yourself, resulting in better food choices and achieving any diet goals you set.

Visit the FDA Web site for additional information on food labeling and nutrition at www.fda.gov.

What's a Serving Size?

Remember: One package does not necessarily equal one serving size. On this box of macaroni and cheese in the food label we have been using as an example, the label displays information for one serving even though the package contains two full servings.

Check the calories

Calories serve as a measurement of how much energy you are getting from a serving of food. It is common for people to consume more calories than they need in a day without eating enough healthy nutrients. Here's a quick guide to calories:

- 40 calories = low
- 100 calories = moderate
- 400 or more calories = high

Remember that most people only need about 2,000 calories a day. Aim to eat three meals a day that fall around the 500- or 600-calorie range and a few snacks if you get hungry between meals while also maximizing your nutrient intake. Think about the poor choices out there, like a large fast-food burger. Some of them come in at close to 800 calories—without french fries. That is nearly half of your day's calories! Eating too many calories on a daily basis will lead to obesity for most people.

Limit Fats, Sodium and Cholesterol

These three items are highlighted in yellow. Too much of any or all of these can result in chronic diseases. It is recommended to keep your intake of these nutrients to a minimum—check the footnote for the recommended daily value of each.

How Does Sodium Affect Lithium?

Lithium is a naturally occurring mineral with an electrical charge similar to salt. The level of salt in your body affects the action of lithium. Once lithium reaches therapeutic range, it can be altered by small changes in daily salt intake.

If you normally don't eat much salt and then sit down one night and eat a bag of potato chips or a pizza or canned soup, your lithium level will likely decrease. If you've been diligent with your lithium medicine routine but

have changed your salt-eating pattern, it may significantly interrupt your medication treatment outcome. Keeping your sodium intake fairly consistent is very important for people who take lithium.

If you are very active and sweating a lot, or have diarrhea or are vomiting, you could lose a lot of sodium and then your body may end up with too much lithium. Never take salt tablets or go on a salt-restricted diet without talking to your doctor if you are taking lithium. Lithium has predictable blood levels, and to understand what is too high or too low, talk with your health care provider about adjusting your lithium dosage if you are lowering your sodium intake.

Choosing the Right Foods

Following is a list of healthful foods and suggested balances of varieties of foods that will help you learn more about healthy eating. It may be helpful to visit our section on vegetarian diets on page 21.

Whole grains

The benefits of a high-fiber diet are well-known. Besides fiber, whole grains provide B vitamins, folic acid, iron and magnesium. Look at the ingredient list on breads and other grain products. The first ingredient should say "whole wheat" or "100 percent whole grain." Look at the nutrition facts panel for at least two grams of dietary fiber per slice of bread.

The more fiber in a product, the better! Fiber normalizes bowel movements, helps maintain bowel health, lowers cholesterol levels, controls blood sugar levels and helps with weight loss. Fiber keeps you feeling full longer, helping you avoid over-eating or snacking when trying to lose weight.

Fats (including saturated fat, trans fats and Omega-3 fats)

There are good fats and bad fats. Foods that are high in saturated fats can increase our cholesterol levels. It is important to limit foods such as fatty meats, whole milk, butter and tropical oils such as coconut and palm.

Trans fats should be eliminated, so look at the nutrition facts panel and avoid foods that contain partially hydrogenated oils. Foods such as margarine, shortening, commercial french fries and pastries are often high in trans fat. When choosing cooking oil, use canola or olive oil whenever possible.

Omega-3 fats, which have health benefits, are found in fatty, deep-water fish such as salmon, tuna, bluefish, sardines and herring. Some studies show that Omega-3 fats provide protection against heart disease, stroke and may also be useful for depression and other health issues. Omega-3 fatty acids are a source of ongoing research in psychiatric conditions.

The American Heart Association recommends two servings of fatty fish per week. If you are planning to get pregnant, review information on mercury and other contaminants that are found in fish. Before taking Omega-3 supplements, be sure to talk with your doctor. Omega-3 capsules may interact with other medications and have a blood-thinning effect. If you are vegetarian, flaxseed oil can offer Omega-3 fatty acids as well.

Milk and Milk Products

Milk products are our main source of calcium and vitamin D, both of which are essential for healthy bones and teeth. Milk and milk products are also a good source of riboflavin, potassium, protein and magnesium. Vitamin D is a hot topic in research prevention at this time.

The recommendation for calcium is 1,000-1,200 mg per day. One serving of milk contains about 300 mg. Other sources of calcium include yogurt, cheese, dark green vegetables and calcium-fortified orange juice. The USDA MyPyramid recommends three cups of milk or milk products per day based on a 2,000-calorie diet. If you cannot tolerate milk products, try lactose-reduced products. Also, talk with your doctor about using calcium/vitamin D supplements.

Vegetables

Everyone knows that they should eat plenty of vegetables. Vegetables are low in calories but high in fiber, potassium, vitamins A, C and E and phytonutrients. Vegetables that are dark in color have the most nutrients. Examples are broccoli, spinach, sweet potatoes and carrots. Benefits of eating vegetables include reduced cancer risk, reduced risk of heart disease, lower blood pressure, diabetes prevention and help with weight control. The USDA MyPyramid recommends five (one-half cup) servings of vegetables every day based on a 2,000-calorie diet. Choose a wide variety of colors when selecting your vegetables each day for the most health benefits.

Fruits

Apart from vegetables, fruits are the most colorful foods on the pyramid. They provide fiber, folic acid and a variety of other nutrients such as vitamin C, potassium and health-protective phytonutrients. Also, they are relatively low in calories and make a healthy, filling snack. Benefits of fruits are similar to those of vegetables. MyPyramid recommends four (one-half cup) servings of fruit every day based on a 2,000-calorie diet. Choose a wide variety of colors when selecting your fruits each day for the most health benefits.

Nuts and Seeds

Nuts can provide a powerhouse of nutrients. Each type of nut offers its own health benefits. For example, walnuts contain plant-based Omega-3 fatty acids, almonds are high in vitamin E and Brazil nuts are high in selenium (an antioxidant). Since nuts and seeds are high in calories, be sure to watch your portion size. MyPyramid recommends a small handful of nuts (about one oz., equal to 20 small nuts, or two tablespoons of peanut butter) every day based on a 2,000-calorie diet.

Beans

All beans are inexpensive, low-fat, nutrient powerhouses. They contain protein, fiber, B vitamins, iron, folic acid, potassium, magnesium and phytonutrients.

Protein

Meats are currently the main source of protein in the American diet. Reducing the amount of meats we eat and increasing our intake of vegetables, fruit and whole grains is essential to eating more healthfully. All red meat choices should be lean, and poultry should be skinless. Choosing white meats over red meats is a good general strategy. Fish should be eaten at least twice a week. Beans, tofu and nuts can substitute for meat in meals. This food group (meat, beans, seeds, nuts and fish) provides protein, B vitamins, iron, magnesium, zinc and vitamin E. MyPyramid recommends five to six oz. of meat protein a day based on a 2,000-calorie diet.

Special Diets

Dairy-free and Vegan Diets

A dairy-free and vegan diets contain absolutely no dairy products: no milk, butter, cheese, cream or yogurt. Those following a dairy-free or vegan diet are advised to make sure they get enough calcium, protein and vitamins from other food sources.

Dairy substitutes may include: almond milk, apple, pear or prune puree, cheese alternatives (soy, rice), multi-grain milk, nondairy frozen desserts, oat milk, rice milk or soy milk. When baking, milk may be substituted, in equal amounts, with water or fruit juice. In planning meals, make sure that each day's diet includes enough calcium. Many nondairy foods are high in calcium, such as green vegetables (broccoli, cabbage and kale) and fish, such as salmon and sardines. Incorporating tofu into meals also helps to ensure that you are getting calcium.

Vegetarian Diets

Some people choose vegetarian diets for environmental, cultural, religious and ethical factors, while some choose not to eat meat because they believe it's a healthier choice. If you are or are thinking about embracing a vegetarian diet, you will need to take extra steps to ensure that you're meeting your daily nutritional needs.

A healthy vegetarian diet consists primarily of plant-based foods such as fruits, vegetables, whole grains, legumes, nuts and seeds. A vegetarian diet generally contains less fat and cholesterol and typically includes more fiber. You will want to make sure that you are eating foods to give you and adequate amounts of protein, calcium, vitamin B-12, iron and zinc.

The key to a healthy vegetarian diet—or any diet for that matter—is to enjoy a wide variety of foods. Since no single food provides all the nutrients your body needs, eating a wide variety helps to ensure that you'll be getting the necessary nutrients that promote good health.

Dining Out

There is nothing wrong with asking restaurants may be able to make healthier versions of their dishes. Ask if you can get your food baked, roasted or steamed instead of fried. Ask for fat free milk rather than whole milk. Ask for salad dressing on the side. Part of the battle of eating healthy

is making minor decisions like these and you may not even notice the difference in taste.

Although buffets may give you the most food for the least amount of money, it can be pretty dangerous to have “all you can eat.” If you’re eating at a buffet, challenge yourself. Fill up one healthy-sized plate with everything you want and don’t go up for seconds! It takes about 20 minutes for your brain to tell your body that you’re full so take your time digesting before assuming that you need more food.

Eating Well on a Tight Budget

It's easy to eat healthy, even if you're on a budget.

Avoid temptations while shopping at the grocery store by making a list of healthy items you want to buy. By doing this, you are less likely to get what you want and more likely to get what you need. Consider planning a week’s worth of meals and buy all of the ingredients for them at once. That way, you can plan to eat healthy every night and won’t have to take multiple trips to the grocery store.

Impulse buys are very common in the grocery store and if you’re hungry, you are more likely to give in to buying what you’re craving and not what you should be eating. So go to the grocery store after a healthy meal when you are feeling satisfied and not famished.

Be aware that pre-packaged foods can contain unhealthy chemicals and preservatives and are often high in sodium, sugar and fat. They also tend to be expensive. If you make your own food with fresh and frozen ingredients, not only will you save money, but you also can control every last thing that goes into your food and into your body.

Shop the perimeter of the grocery store. That’s where the healthier foods often are! If you think about the layout of the grocery store, you will realize that the freshest produce, such as fruits and vegetables, are

stocked around the store's perimeter. Why even tempt yourself by walking through the aisles of junk food and sugary sodas?

And finally, shop sales, buy in bulk with a friend and split large quantities and check out discount grocery outlets who usually offer a selection of healthy and fresh foods at reasonable prices.

Using Food Stamp Benefits

The goal of the U.S.D.A. food stamp program, now known as the Supplemental Nutrition Assistance Program (SNAP), is to help U.S. households enjoy healthy diets.

Food stamp benefits can buy any food intended to be eaten at home. This includes breads and grains, dairy products, fruits and vegetables, meat, fish and poultry, nonalcoholic beverages (juice, water), snack foods, etc.

Today, nearly 800 farmers' markets across the United States accept food stamps—it doesn't get any healthier than that! Farmers' markets offer the freshest produce, and often times dairy products such as cheeses, milk, eggs and even local meat products. To find a farmers' market that accepts food stamps near you, visit www.fns.usda.gov/fsp/ebt/ebt_farmers_markstatus.htm.

To learn more about SNAP, find your state office contact information or to see if you are eligible for assistance, visit www.fns.usda.gov/snap or call 1 (800) 552-3431.

Exercise

Movement can be good for body, spirit and mind. As with the everyone, activity and exercise are very important for people with mental illness. Currently, there is strong scientific evidence that physical activity can lower the risk of the following in adults and older adults:

- Early death
- Heart disease and stroke
- Type 2 diabetes
- High blood pressure
- Poor lipid profile (cholesterol/triglyerides)
- Metabolic syndrome
- Colon and breast cancers
- Weight gain
- Symptoms of depression
- Falls

Exercise doesn't have to be intimidating or expensive. Who needs a gym membership when you can walk with our without friends? As long as you

get up and do something, your body will thank you, and you may even surprise yourself and have some fun. Movement of most kinds can be very beneficial. Follow the steps below to form your own exercise routine:

Warm-up: This portion of the program helps your body adjust to an increased pace. Your warm up should last between five and 10 minutes.

Strength Training: This section of the program can be done in many different ways and will help protect your body from osteoporosis, help burn calories and increase lean muscle mass and well-being.

Aerobic Exercise: This part of the program includes exercise that makes your heart work harder and makes you breathe deeper and harder. This is the type of exercise best associated with reductions in depression and anxiety.

Flexibility Exercises: This portion of the program, more commonly known as stretching, can be done anywhere and anytime. Yoga, tai chi and Pilates are all ways to increase flexibility, build core strength and also reduce stress.

Cool-down: This last section of the program allows your body to slowly cool down. Once complete you should feel as though your heart rate and breathing rate are near normal.

Your Heart Rate

Your maximum heart rate is about 220 minus your age. For cardiovascular benefits you will want to exercise within 60-85 percent of your maximum heart rate.

Age	Average Maximum Heart Rate	Target Zone 60%-85% of Maximum
20	200bpm	120 to 170 bpm
25	195	117 to 166
30	190	114 to 162
35	185	111 to 157
40	180	108 to 153
45	175	105 to 149
50	170	102 to 145
55	165	99 to 140
60	160	96 to 136
65	155	93 to 132
70	150	90 to 128

Sticking to a regular exercise program can be challenging. For more resources, tips and information on exercise, visit www.nami.org/heartsandminds.

Metabolic Syndrome and Type 2 Diabetes

Unfortunately, the risk of diabetes is greater for people living with mental illness, especially those taking second-generation atypical antipsychotic medications (SGAs). In addition, another issue to be aware of is metabolic syndrome, a condition that can be a precursor to diabetes. Left untreated, these two issues can cause severe health problems and can shorten your life. NAMI Hearts & Minds can give you a start on the information you need to meet these problems head-on.

High Risk Individuals and Factors

Diabetes and the metabolic syndrome are found in higher numbers in these groups of individuals living with mental illness:

- People living with schizophrenia and bipolar disorder/mood disorders.
- African Americans, Latinos, American Indians and Asian Americans.
- People who smoke.
- People with a family history of diabetes and metabolic syndrome.
- People who take second-generation atypical antipsychotic medication (SGAs).

Metabolic Syndrome

Metabolic syndrome is a combination of medical risk issues. These issues include worsening sugar control, high blood pressure, elevated cholesterol and other problems. Metabolic syndrome raises the risk for diabetes and heart disease and can be thought of as a condition that precedes diabetes.

Waist circumference as well as glucose and lipid levels are key measures for metabolic syndrome. To say safe, it is recommended that waist circumference not exceed 40 inches in men and 35 inches in women.

There is evidence that this is a real issue for people living with mental illness—the syndrome equally affects both men and in women and is more common in people who take SGAs. The same strategies you would consider in managing diabetes are the same you should consider if you have indications of metabolic syndrome—walking (and other exercise), nutrition and working with your health care provider to monitor your progress on this issue are the keys to its prevention.

Type 2 Diabetes

Diabetes is a problem related to how your body uses sugar. It is a serious medical problem. There are several types of diabetes—we will focus on the adult-onset type, also called Type 2 diabetes. Type 2 diabetes results from cells in person's body failing to use insulin properly. Insulin enables cells in the body to use glucose (a kind of sugar) to turn it into energy. In Type 2 diabetes, the rising glucose levels seen in the bloodstream are an indicator that the body is not using insulin well. Being overweight, especially around the middle/abdomen, is the most common underlying cause of adult-onset diabetes. Having a family history of adult-onset diabetes is another risk. By becoming more active and engaging in a weight-loss program, you may be able to halt and even reverse adult-onset diabetes. Talk with your health care provider before beginning an exercise or diet program.

SGAs and Diabetes Risk

All medications have side effects. Side effects may be rare or common, serious or merely annoying. A medicine with frequent mild side effects may be tolerated by a majority of people and be regarded as relatively safe. On the other hand, if a medicine has more serious side effects, it informs treatment decisions and indicates a need for risk-monitoring.

You should review and discuss the risks of side effects versus the expected benefits of any medication with your health care provider. In many cases, especially when considering the options of nontreatment, even serious side effects may be worth the risk.

Some medications offer greater risks than others, and the same is true for SGAs. The chart on the opposite page offers information on how these various medicines are ranked in terms of risk. It is imperative that you understand this information as you choose a medication in partnership with your health care provider. Talk with your health care provider about the relationship between your medicine and diabetes or diabetes risks.

Be sure to engage in a conversation with your health care provider about what medicine could be the best fit for you. While initial awareness of increased SGA risk for weight gain, metabolic syndrome and diabetes was slow to evolve, it is now very clear to the FDA as well as to individuals, family members and health care providers.

Symptoms

Type 2 diabetes can exist in a person for years before it is identified. The most common symptoms of undetected diabetes are increased thirst and urination. Fatigue is also common. Other signs include dry and itchy skin, blurry vision and slowly healing wounds. If you notice any of these symptoms, it is important to get your sugar (glucose) level checked when you see your health care provider. A simple blood test will tell you if you are either at risk for, or if you have, Type 2 diabetes. A fasting blood sugar over 126 mg/dl (miligrams per deciliter) is one key diagnostic criteria.

Heart Risks of SGAs

SGAs and Diabetes Warning Signs

Drug	Weight gain	Risk for diabetes	Worsening lipid profile
Clozapine	+++	+	+
Olanzapine	+++	+	+
Risperidone	++	D	D
Quetiapine	++	D	D
Aripipazole*	+/-	-	-
Ziprasidone*	+/-	-	-

+ = increase effect; - = no effect; D = discrepant results.
* Newer drugs with limited long-term data.

Source: *Diabetes Care*, February 2004

Note: This ADA chart was created in 2004. Newer SGAs such as Paliperidone (Invega) and Asenapine (Saphris), which are not included on this chart, do carry heart-related side effects. As these are newer medications, more will be learned about the details of their side effects over time. To keep up to date on the latest FDA-approved medicines, visit www.fda.gov.

Monitoring

The best practices for heart-risk prevention and diabetes monitoring in people who take SGAs are ever-evolving. One of the key documents in both of these fields is the 2004 ADA/APA Guidelines. These Guidelines have since been viewed as not aggressive enough in monitoring for lipids like triglycerides and cholesterol by many clinicians. The ADA, www.diabetes.org, offers the latest information and guidelines for diabetes generally, which include information on children and teens that are at increased risk for developing diabetes.

The ADA suggests that if your blood glucose levels are in the normal range, it is a good idea to get checked every three years. If you have pre-diabetes, you should be checked for Type 2 diabetes every one to two years after your diagnosis.

Talk with your health care provider about your concerns. If you are taking SGAs, you should have or obtain a baseline of data that will help you monitor your risks. The chart below outlines a suggested schedule for you to discuss with your health care provider.

Schedule for Monitoring Patients On Second Generation Antispychotics*

	Baseline	4 wks	8 wks	12 wks	Quarterly	Annually	Every 5 yrs
Personal/family history	X					X	
Weight (BMI)	X	X	X	X	X		
Waist circumference	X					X	
Blood pressure	X			X		X	
Fasting plasma glucose	X			X		X	
Fasting lipid profile	X			X			X

More frequent assessments may be warranted based on clinical status
Source: *Diabetes Care*, February 2004

Treatment and Disease Management

If you have Type 2 diabetes, making exercise, such as walking, and a healthy diet part of your lifestyle are good first steps to treating your condition. There is no question that attention to exercise and diet is essential to managing and preventing these problems. In addition, there is increased interest in the use of antidiabetic medications such as metformin along with SGAs even before diabetes is identified.

If you have diabetes, ask your health care provider to get a longer-term measure of your sugar control, called an HgbA1c (pronounced hemoglobin AY one see). This can tell you how your diabetes has been controlled over the previous months and is a good way to get information about your current condition. This can help to inform your future efforts. In general, a reading of seven or lower is considered good.

Remember

A very troubling fact is that most people with these conditions who also live with mental illness are not getting good preventive or medical care for these problems.

Even though they are trained as medical doctors, sometimes psychiatrists don't consider medical problems to be a core aspect of their responsibility. Conversely, some internists manage diabetes everyday but do not appreciate the increased risk of people living with mental illnesses or the risks associated with the use of SGAs. People can find themselves caught between the two systems with a lack of clarity about roles and responsibilities, resulting in fragmented care. Remember to seek out and demand the best health care you can find and afford. Everyone deserves a high level of health care—something NAMI is striving to achieve for every person living with mental illness.
For more resources, including fact sheets and videos, visit www.nami.org/heartsandminds.

For more information about
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