



Dear John Doe,

This letter is written especially for you.

Q: Why did I receive this personalized letter?

A: It is a part of the service of the Know Your Number program in which you were recently enrolled. It provides additional help for you to understand your report; it explains where your chronic disease risks come from and, most importantly, what you can do to reduce your risks.

Q: How was this letter generated?

A: This letter was generated through the analysis of the data from your personal Know Your Number profile on 08/03/2007. All of your information is kept strictly confidential.

How to Control Your Health:

Step 1: Know Your Number!

Step 2: Take Action!

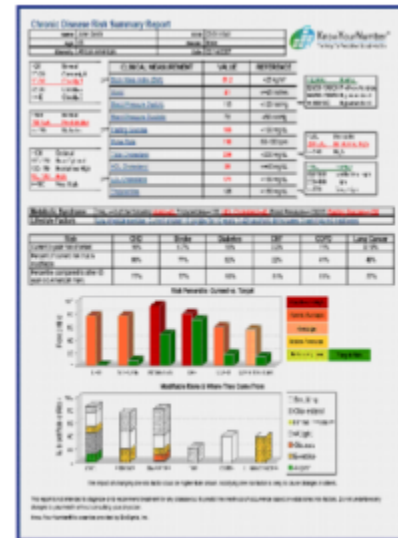




Step 1: Know Your Number!

Congratulations! Our information shows that you have enrolled in the Know Your Number (KYN) program. You have taken this very important step to take charge of your long-term health. You may have already read your KYN report, but let's go over it again; maybe we can help you better understand your numbers.

If you remember, your KYN report is about your future risks of having major chronic diseases. Your risks were calculated based on the risk factors you have. The risk factor information is from your answers to some questions and from some medical information about you. Among all the risk factors considered, some may be in the healthy range and others are outside the healthy range. Certain risk factors can be controlled (modifiable), while others cannot (non-modifiable). So let's learn more about your risk factors.



Your Risk Factors

Modifiable: Clinical measurements

First, let's look at those clinical measurements that are risk factors which you have the power to control. They are as follows:

- Total cholesterol
- HDL (the 'good' cholesterol)
- LDL (the 'bad' cholesterol)
- Triglycerides (from fats)
- Glucose (blood sugar)
- Blood pressure
- Body mass index (BMI)
- Waist measurement





The following table shows the values of your clinical measurements. Each is classified into a risk category. Green indicates a normal or preferred value.

Clinical Measures	Your Value	Your Category	Risk Category				
Total Cholesterol mg/dL	250	High	Desirable <200	Borderline High 200-239	High ≥240		
HDL Cholesterol mg/dL	40	Moderate	Low <40	Moderate 40-59	High ≥60		
LDL Cholesterol mg/dL	180	High	Optimal <100	Near Optimal 100-129	Borderline High 130-159	High 160-189	Very High ≥190
Triglycerides mg/dL	148	Normal	Normal <150	Borderline High 150-199	High 200-499	Very High ≥500	
Glucose mg/dL	110	Prediabetes	Normal <100	Prediabetes 100-125	Diabetes ≥126		
Blood Pressure mmHg	128/90	Hypertension I	Normal <120/80	Prehypertension 120/80-139/89	Hypertension I 140/90-159/99	Hypertension II ≥160/100	
Body Mass Index (BMI) kg/m ²	31.4	Obesity I	Normal <25	Overweight 25-29.9	Obesity I 30-34.9	Obesity II 35-39.9	Obesity III ≥40

Here is detailed information on each of your modifiable risk factors:

- Your total blood cholesterol value is 250 mg/dL. It is much higher than the National Cholesterol Education Program (NCEP) recommendation of total cholesterol below 200 mg/dL. You should talk with your doctor about ways to reduce your number and protect your heart. The foods you eat can contribute to high blood cholesterol, but even if you do not eat any high cholesterol foods, your liver can still produce it.
- Your HDL cholesterol is 40 mg/dL. You reached the NCEP-recommended goal of 40 mg/dL or more. HDL helps carry cholesterol away from the blood and may offer protection from diseases such as coronary heart disease and diabetes.





- Your LDL value of 180 mg/dL is between 160 and 189 and is therefore considered High according to general guidelines for adults. And it is higher than your NCEP-recommended LDL goal. According to NCEP, your LDL should be below 100 mg/dL. This is based on your age, medical conditions, risk factors, and heart disease risk. LDL is the main source of cholesterol buildup and blockage in the arteries.
- Your blood triglyceride value is 148 mg/dL. It is in the healthy range. Keep up the good work! Triglyceride is another contributing cause of artery blockage that leads to heart disease and stroke. When you eat foods that have more calories than your body needs, the calories are converted to triglycerides and stored in fat cells.
- Your fasting blood glucose value is 110 mg/dL. It is high. If you were fasting for at least 9 hours before the blood draw and this result is confirmed again by another test, then you could be diagnosed as having prediabetes. This high glucose level will increase your risk for getting diabetes. Diabetes can lead to kidney failure, blindness, leg amputation, heart disease, stroke, and premature disability and death. However, prediabetes is reversible.
- Your blood pressure is 128/90 mmHg. This puts your blood pressure in the category of Hypertension I. High blood pressure or hypertension, is sometimes referred to as the "silent killer" because it does not have specific symptoms or early warning signs. Over time, hypertension increases the heart's workload, weakens the heart, and damages the blood vessels.
- You weigh 225 lbs. Your body mass index (BMI), which considers your weight by taking your height into account, is 31.4. This puts you into the category of Class 1 Obesity. A weight loss of 11 lbs would bring you into the Overweight category and a loss of 46 lbs would bring you just into the Normal category. Nutritionists recommend an initial weight loss target of 5-10% of body weight, which is 11-23 lbs in your case. Even a very modest weight loss improves physical capabilities and lowers the risks of future diseases.
- Your waist measurement of 40 Inches is normal.
- Metabolic syndrome increases the risks of heart disease and diabetes. Diagnosis of metabolic syndrome can be made if any three out of the five following values are in the unhealthy range: waist measurement, triglyceride, blood pressure, HDL cholesterol and fasting blood glucose. You currently do not have metabolic syndrome. Congratulations!

Modifiable: Lifestyle factors

Smoking and lack of exercise are also two very important modifiable risk factors for many chronic diseases.

- Your physical exercise level is classified as moderate.





- You do not smoke. Good for you!

Non-modifiable risk factors

There are some risk factors that you have no control over but can raise risks, such as your medical history and family history.

PERSONAL HEALTH	
Coronary Heart Disease (CHD) Status	No
Stroke Status	No
Diabetes Status	No
Congestive Heart Failure (CHF) Status	No
Atrial Fibrillation	No
Left Ventricular Hypertrophy	No
Other Cardiovascular Disease	No
Valve Disease or Heart Murmur	No
FAMILY HISTORY	
Family History of CHD	Yes
Family History of Stroke	No
Family History of Diabetes	No

The results from the above table show:

- You have a family history of heart disease.

Now you may have a better understanding of your risk factors. Let's move on to see how much those risk factors have contributed to your overall risks for chronic diseases.





Your Disease Risks

The KYN program uses a patented and advanced statistical technique, which allows us to comprehensively review your risk profile so that we can make very accurate chronic disease risk predictions as shown in the following table. These diseases can significantly reduce your quality of life or even cause death. Since you are not a smoker, KYN did not predict your risks of chronic obstructive pulmonary disease (COPD) and lung cancer.



	Probability		Percentile	
	Current	Modifiable	Current	Risk Classification
CHD	9.1%	65%	80%	Relatively High
Stroke	1.7%	62%	50%	Average
Diabetes	6.1%	79%	66%	Above Average
CHF	1.2%	29%	72%	Above Average
COPD	N/A			
Lung Cancer	N/A			

Your risks as probabilities

Your risk is expressed as a probability. This percentage is your likelihood of developing a disease within the next five years. For example, if your risk for one disease is 20%, it means that among 100 people who have the exact same risk as you have approximately 20 of them will be diagnosed with the disease within the next 5 years. Your predicted 5-year risks for CHD, Stroke, Diabetes and CHF are 9.1%, 1.7%, 6.1% and 1.2% respectively.

While those numbers may look very precise, they may not help you understand whether you have high or low risk unless we make some comparisons.





Your achievable and modifiable risks

First, let's compare your risk with a healthier risk value that we believe you can reasonably achieve. We call this the achievable risk. Achievable risk is defined as your risk level if you were to move all of your unhealthy modifiable risk factors to the normal range. By looking at the difference between your current risk and your achievable risk you can see how much of your disease risk is in your control. We also calculated the difference and presented it as a percentage. This is the percentage of your current risk that is modifiable. Your percentages of modifiable risk for CHD, Stroke, Diabetes and CHF are 65%, 62%, 79% and 29% respectively. Since 3 of your disease risks are more than 50% modifiable, this suggests that these risks are much higher than they need to be. Factors you have control over are contributing to these increased risks. By getting serious about just a few risk factors, you can greatly reduce your disease risks.

Your risk percentiles: Compared with other Americans

Your risk percentile compares your risk with other 51 year old American men. For example, if your risk percentile is 60%, it means 60% of 51 year old American men have lower risk than you. Higher percentiles mean your risk is high and is not preferred. As shown in the above table, your percentile risks for CHD, Stroke, Diabetes and CHF are 80%, 50%, 66% and 72% respectively. The risks are classified as Relatively High, Average, Above Average and Above Average respectively.

Now we have talked about your risk factors and your disease risks separately. Let's link the information together.

Sources of Your Disease Risks

Unhealthy disease risk factors contribute to disease risk. But improving risk factors can reduce the risks of diseases. Now we will find out how changing your risk factors, by healthier living, can lower your risks of these chronic diseases. The unhealthy risk factors that you may have contribute differently to each disease.

Below is a list of your unhealthy modifiable risk factors, if any, for the disease predicted. Also included in parentheses is the percent of risk that can be lowered if that risk factor is brought into the normal healthy range. For example, for CHD the list below might have "high blood pressure (22%)". This means that high blood pressure accounts for 22% of the CHD risk. In other words, if the blood pressure is dropped down to the normal range, the CHD risk would be lowered by 22%.





CHD

- high cholesterol (35%)
- high blood pressure (11%)
- obesity (12%)
- not enough exercise (7.1%)

Stroke

- high blood pressure (12%)
- obesity (37%)
- not enough exercise (13%)

Diabetes

- high glucose (25%)
- high blood pressure (3.1%)
- obesity (45%)
- not enough exercise (6.4%)

CHF

- high blood pressure (7.9%)
- obesity (21%)

COPD

- You do not have a prediction for COPD

Lung Cancer

- You do not have a prediction for lung cancer





STEP 2: Take Action!

Congratulations again! If you are reading this section it means that knowing your risks and where your risks come from has motivated you to think about taking action. You are about to read what specific actions, based on your overall risk and risk factors, would help you most in reducing your risk of future chronic diseases.

Talk to Your Doctor

Your risk profiles show that you have some risk factors that need your doctor's attention. Your total cholesterol (250 mg/dL) is too high. Your LDL (180 mg/dL) is too high. Your fasting blood glucose (110 mg/dL) is high. Your blood pressure (128/90 mmHg) is high. If your doctor is not aware of any of these, he or she may want to confirm them and then decide what treatment(s), including prescription drugs, are right for you.

Control Your Blood Lipids Through Medication, Pay Attention to Exercise and Diet

Your KYN report shows: Your total cholesterol (250 mg/dL) is too high. Your LDL (180 mg/dL) is too high. And you are currently taking cholesterol lowering medication, suggesting that your lipid levels would be even worse if you did not take medication. You should know that diet and exercise can be very effective in controlling your blood lipids. We suggest that you eat more foods low in saturated fat and cholesterol and cut down on high-fat foods, especially those high in saturated fat. Here are some simple daily guidelines:

- Watch your caloric intake by eating a wide variety of foods low in saturated fat and cholesterol.
- Eat at least five servings of fruits and vegetables every day.
- Eat fish, poultry without skin and leaner cuts of meat instead of fatty ones.
- Eat fat-free or 1% milk dairy products rather than whole-milk dairy products.
- Enjoy 30-60 minutes of vigorous activities on most (or all) days of the week.
- Maintain a healthy weight.





Help Reduce Your Blood Glucose Through Diet and Exercise

Your fasting blood glucose value is 110 mg/dL. If you fasted properly before the blood draw then you may have pre-diabetes. (If you were not properly fasting then you should have your blood glucose checked again under proper conditions.) Pre-diabetes is largely reversible through weight loss and exercise. It may not be necessary to get to an ideal body weight, but losing just 5-10% of your body weight has the potential to lower your glucose and risk of diabetes. Getting 30 minutes of exercise a day, 5 days a week, is also important. This should be modest physical activity that you enjoy and don't dread doing. Your doctor may be able to help with further testing and lifestyle recommendations.

Control Your Blood Pressure

Your blood pressure has two numbers. The first number is called systolic blood pressure, which is your blood pressure while your heart contracts. The second number is called diastolic blood pressure, which is your blood pressure while your heart relaxes between beats. Your blood pressure (128/90 mmHg) is at the level of hypertension. A significant portion of your CHD, diabetes and stroke risk is coming from your high blood pressure. Below is a list of ten ways you can control your high blood pressure.



- Know your blood pressure and have it checked regularly.
- Know what your weight should be. Keep it at or below that level.
- Avoid using too much salt when cooking or at meals. Minimize your intake of salty foods.
- Eat a diet low in saturated fat especially from meat and dairy products.
- Control your alcohol intake. Don't have more than two drinks a day.





- If your doctor prescribes medication to you, take the medicine exactly as prescribed. Don't run out of pills even for a single day.
- Keep appointments with your doctor.
- Follow your doctor's advice about physical activity.
- Make certain your parents, brothers, sisters and children have their blood pressure checked regularly.
- Try to live a normal, relaxed life.

Following the recommendations of your healthcare professional is essential to lowering your high blood pressure.

Lose Weight

You need to lose 46 lbs to reach your desirable weight. Here is a check list from the American Heart Association about how to lose weight successfully:



- Eat less fried food.
- Use less butter, oils and fat when cooking.
- Eat smaller portions of food.
- Eat less red meat and more chicken and fish. (Remove chicken skin and as much visible fat as you can before cooking.) Also, when shopping, pick less fatty cuts of meat.
- Eat more fruits and vegetables.
- Eliminate or limit alcohol use. Alcoholic drinks have many calories, and too much alcohol can increase blood pressure.
- Eat whole-grain cereals, rice and breads.
- Use low-fat or fat-free dairy products (1% or nonfat milk, buttermilk, low-fat yogurt).
- Enjoy at least 30 minutes of physical activity most days of the week.





Get More Physical Exercise

Swimming, cycling, jogging, skiing, aerobic dancing, walking or any of dozens of activities can help your heart. They all cause you to feel warm, perspire and breathe heavily without losing your breath and without feeling any burning sensation in your muscles. Whether it is a structured exercise program or just part of your daily routine, all exercise leads to a healthier heart.



Here are some tips for exercise success from the American Heart Association:

- If you've been sedentary for a long time, are overweight, have a high risk of coronary heart disease or some other chronic health problem, see your doctor for a medical evaluation before beginning a physical activity program.
- Choose activities that are fun, not exhausting, and add variety. Develop a set of several activities that you can enjoy so that exercise will never seem boring or routine.
- Wear comfortable, properly fitted footwear and loose-fitting clothing appropriate for the weather and the activity.
- Find a convenient time and place to do activities. Try to make it a habit, but be flexible. If you miss an exercise opportunity, work activity into your day another way.
- Listen to music to keep you entertained.
- Surround yourself with supportive people. Decide what kind of support you need. Do you want them to remind you to exercise? Ask about your progress. Participate with you regularly or occasionally? Share your activity time with others. Make a date with a family member, friend or co-worker. Be an active role model for your children.
- Don't overdo it. Do low- to moderate-level activities, especially at first. You can slowly increase the duration and intensity of your activities as you become more fit. Over time, work up to exercising on most days of the week for 30-60 minutes.
- Keep a record of your activities. Reward yourself at special milestones. Nothing motivates like success!





Summary

In the end, we would like to say congratulations again because by enrolling in the KYN program and reading this letter about your risks for major chronic diseases, you just started a journey to better control your future health. For that reason alone, you are already ahead of most Americans. We hope you find this letter helpful and start to take action to reduce your risks so that you can enjoy a healthy life in the future. Should you have any further questions, please contact your doctor for more assistance.

