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TEST PATIENT

GUa d'Y 'HYgh'BUa Y
 Sex : :
 DUH Y Collected : 00-00-0000
 111 H9GH ROAD TEST SUBURB
@AB =8: 0000000 UR#:0000000

TEST PHYSICIAN

DR JOHN DOE
 111 CLINIC STF 99H
 7@B=7 'GI 6I F6 'J =7 ' \$\$\$

GENOMIC_ASSESSMENTS

SWAB-SALIVA Result Range Units
 Please refer to report attached.

<i>Apo E</i>	<i>Apolipoprotein E : CHOLESTEROL REGULATION</i>
<p>Location: Chromosome 19 APOE APO E2: cys / cys APO E3: cys / arg APO E4: arg / arg Your Genotype:</p>	<p>Apolipoprotein E (Apo E) plays a key role in lipid metabolism by helping to remove dietary cholesterol (chylomicrons and VLDL) from the bloodstream.</p> <p>Health Implications</p> <ul style="list-style-type: none"> · The E4/E4 genotype is rare, accounting for less than 3% of a given population. · Highest total- and LDL cholesterol, lowest HDL-C. · Increased risk of stroke (esp. among Asians), hypertension, and MI; also increased risk of cognitive impairment after stroke; possibly lower CRP levels, despite higher CV risk. · ApoE4 may be an independent predictor of CAD and type 2 diabetes, especially in obese individuals and smokers · Increased risk of low BMD, oxidative stress, also easier toxicity by heavy metals such as lead and mercury · Possible increased risk and disease severity of multiple sclerosis
<p style="text-align: center;">4 4</p>	
<p>The two SNPs lead to 3 possible variants for each chromosome, known as ApoE2, E3, & E4.</p>	<p>Clinical Management Considerations</p> <ul style="list-style-type: none"> · Stress management: Genotype is associated with poor response to life stressors; prolonged stress contributes to memory decline. · Restricting saturated fat and cholesterol reduces total- and LDL cholesterol, as well as CAD and MI risk. · Avoid smoking and minimize high-glycemic index foods, both of which augment E4-associated risk of CHD. · Alcohol may raise LDL-C in men (neutral effect in women), increase IL-6 levels, and fail to raise HDL-C. · Reduce excess weight, which synergizes with effects of E4 on insulin and lipids. · Fish oils may lower triglycerides but increase LDL-C; mixed studies. · Physical activity and fiber both benefit lipid levels. · Antioxidants may help to counteract low antioxidant tissue levels; anti-inflammatory agents help preserve cognitive function. · Lipid response to statins, and triglyceride response to fibrates, are usually the most positive in E2 > E3 > E4; studies are mixed. · Estrogen therapy appears to be particularly efficacious for both cholesterol and bone in postmenopausal E4 carriers. · APOE4 carriers with BMI ≥25.5 may need higher intakes of DHA for cardiovascular or other health benefits than do non-carriers.

Key	- - Neither chromosome carries the genetic variation.	+ ▲ Gene activity increased
	+ - One chromosome (of two) carries the genetic variation.	+ ▼ Gene activity decreased
	+ + Both chromosomes carry the genetic variation.	

(You inherit one chromosome from each parent)