

Biomarkers of Exposure		
Sample	Biomarker	Smoke constituent
Blood	Carboxyhemoglobin	CO
	4-Aminobiphenyl hemoglobin adduct	4-Aminobiphenyl
	Cotinine	Nicotine
24-Hour urine	Nicotine and nicotine metabolites	Nicotine
	NNAL and NNAL-glucuronides	NNK
	3-Hydroxypropylmercapturic acid	Acrolein
	1-Hydroxypyrene	PAHs
	1,3-Butadiene metabolites	1,3-Butadiene
	SPMA	Benzene
Biomarkers of Potential Harm		
Sample	Biomarker	Biological effect
Blood	HDL and LDL-cholesterol	Artherosclerosis
	Fibrinogen	Cardiovascular disease
	HS C-reactive protein	Tissue injury
	Triglycerides	Artherosclerosis
	Von Willebrand factor antigen	Endothelial cell damage
	Total Bilirubin	Depletion of antioxidant capacity
	Total antioxidant capacity	Depletion of antioxidant capacity
24-Hour urine	11-Dehydrothromboxane-B ₂	Platelet activation
	8-Epi-PGF _{2α}	Lipid peroxidation
	Microalbumin	Endothelial cell damage

TABLE : Biomarkers analyzed in the TES