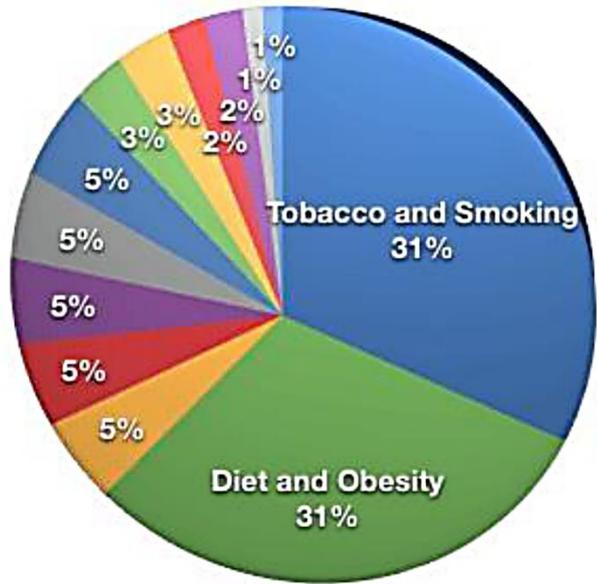


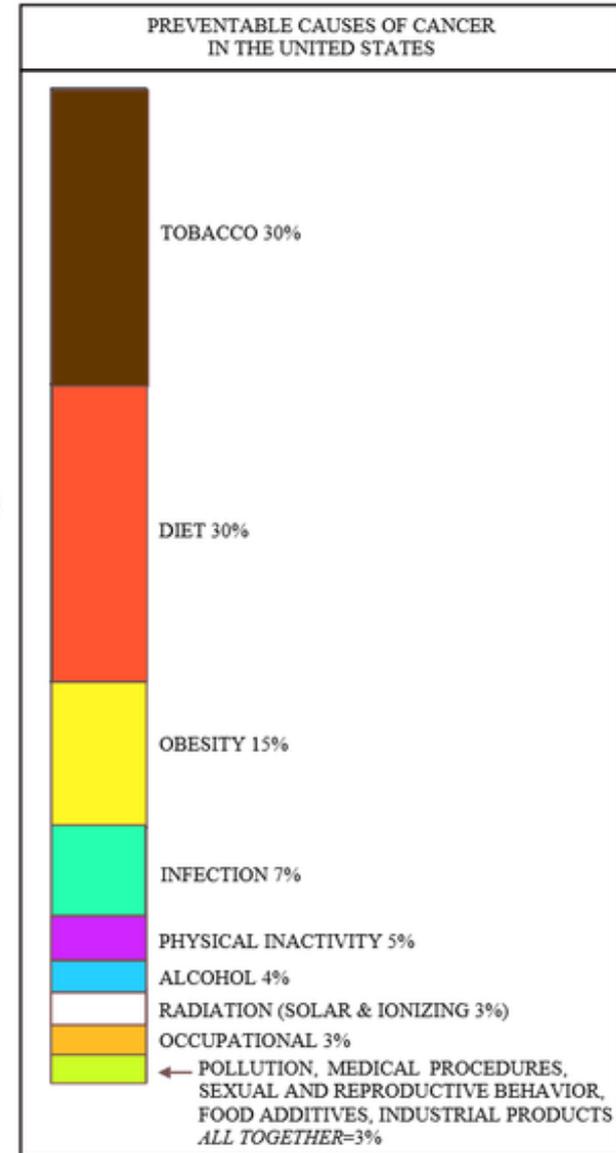
Cancer prevention

Assessment methods and recommendations

Lifestyle-oriented counselling in prevention
Main causes of cancer

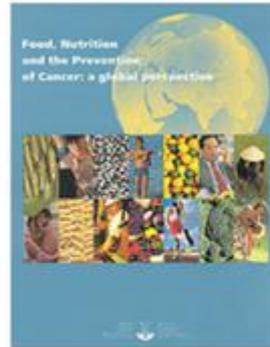
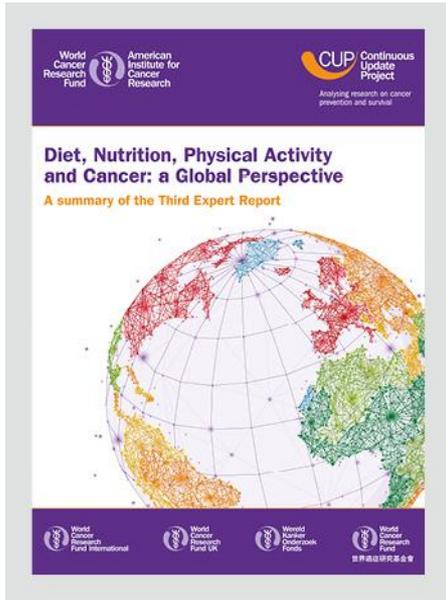


- Tobacco and Smoking
- Diet and Obesity
- Sedentary Lifestyle
- Occupational Exposure
- Family History
- Viruses
- Perinatal Factors/Growth
- Alcohol
- Socioeconomic Status
- Pollution
- UV radiation
- Drugs & Medical Procedures
- Salt, Food Additives & Contaminants

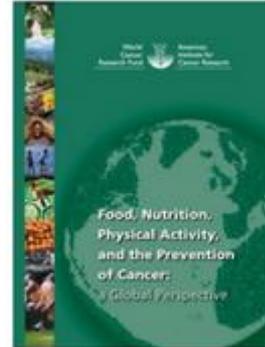


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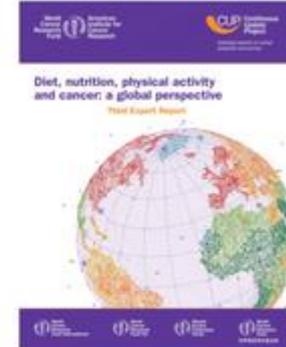
Diet, Nutrition, Physical Activity and Cancer: a Global Perspective – The Third Expert Report, 2018



1997



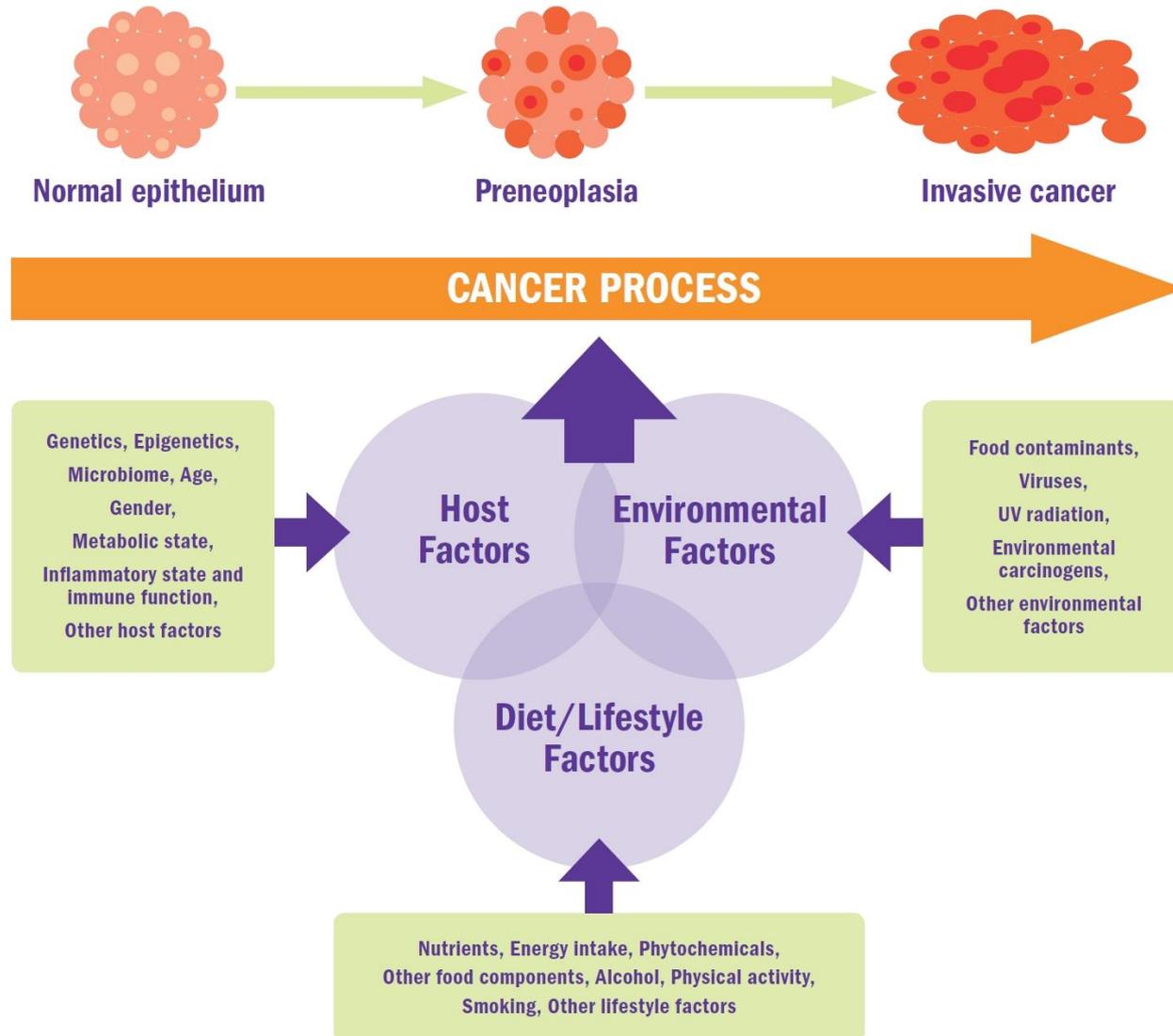
2007



2018

Diet, nutrition and physical activity, other environmental exposures and host factors interact to affect the cancer process

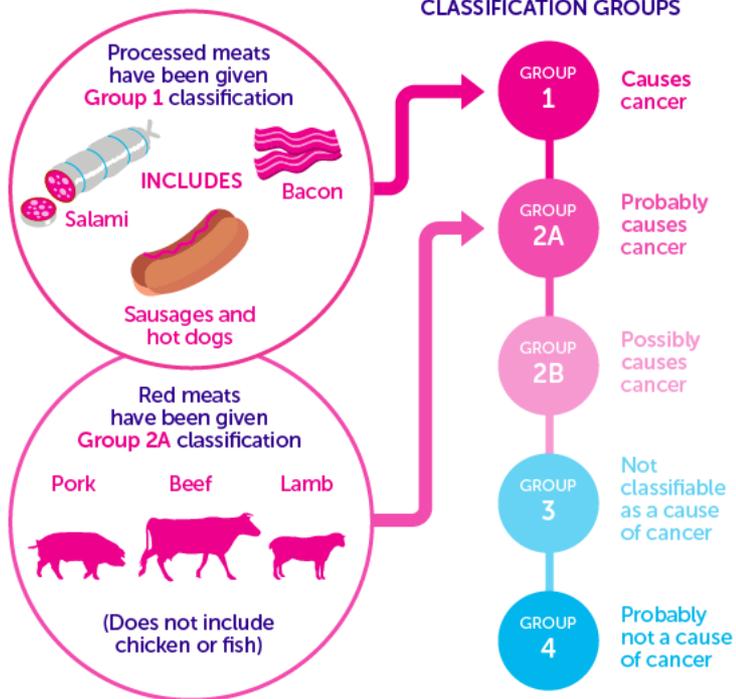
WCR/AICR: Diet, Nutrition, Physical Activity and Cancer: a Global Perspective – The Third Expert Report, 2018



MEAT AND CANCER

HOW STRONG IS THE EVIDENCE?

IARC CARCINOGENIC CLASSIFICATION GROUPS



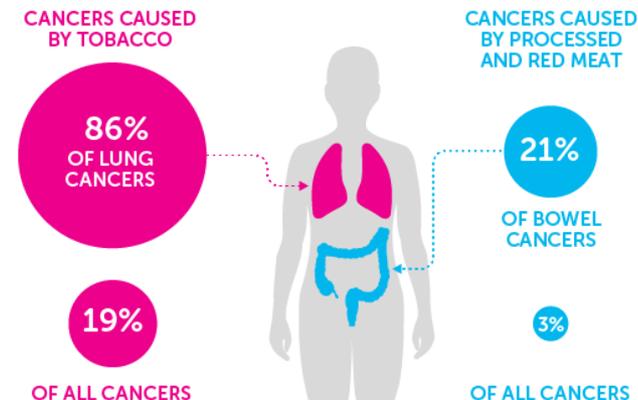
These categories represent how likely something is to cause cancer in humans, not how many cancers it causes.

WE WILL BEAT CANCER SOONER
cruk.org



TOBACCO vs MEAT WHAT'S THE RISK?

The **EVIDENCE** that processed meat causes cancer is as strong as the evidence for tobacco, but the **RISK** from tobacco is much higher...



THE NUMBER OF CANCERS PER YEAR IN THE UK THAT COULD BE PREVENTED IF...



Source: cruk.org/cancerstats

WE WILL BEAT CANCER SOONER
cruk.org



WHOLEGRAINS, VEGETABLES AND FRUIT AND THE RISK OF CANCER

WCRF/AICR grading		Decreases risk		Increases risk	
		Exposure	Cancer site	Exposure	Cancer site
STRONG EVIDENCE	Convincing			Aflatoxins	Liver
	Probable	Wholegrains	Colorectum	Foods preserved by salting (including preserved non-starchy vegetables)	Stomach
		Foods containing dietary fibre	Colorectum		
		Non-starchy vegetables and fruit (aggregated)	Aerodigestive cancer and some other cancers (aggregated)		
Limited evidence	Limited - suggestive	Non-starchy vegetables	Mouth, pharynx and larynx Nasopharynx Oesophagus Lung (people who smoke) Breast (oestrogen receptors negative)	Non-starchy vegetables (low intake)	Colorectum
		Fruit	Oesophagus Lung (people who smoke or used to smoke) Breast (oestrogen receptor-negative)	Preserved non-starchy vegetables	Nasopharynx
		Citrus fruit	Stomach cardia		
		Non-starchy vegetables and fruit	Bladder	Fruit (low intake)	Stomach Colorectum
		Foods containing carotenoids	Lung Breast		
		Foods containing beta-caroten	Lung		
		Foods containing vitamin C	Lung (people who smoke tobacco) Colorectum (colon)		
		Foods containing isoflavones	Lung (people who have never smoked tobacco)		

MEAT, FISH AND DAIRY PRODUCTS AND THE RISK OF CANCER					
WCRF/AICR grading		Decreases risk		Increases risk	
		Exposure	Cancer site	Exposure	Cancer site
STRONG EVIDENCE	Convincing			Processed meat	Colorectum
	Probable	Dairy products	Colorectum	Red meat Cantonese-style salted fish	Colorectum Nasopharynx
Limited evidence	Limited - suggestive	Fish	Liver Colorectum	Red meat	Nasopharynx Lung Pancreas
				Processed meat	Nasopharynx Oesophagus Lung Stomach Pancreas
				Foods containing haem iron	Colorectum
				Grilled (broiled) or barbecued (charbroiled) meat or fish	Stomach
		Dairy products	Breast (premenopause)	Dairy products	Prostate
		Diets high in calcium	Breast (premenopause) Breast (postmenopause)	Diets high in calcium	Prostate

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PRESERVATION AND PROCESSING					
WCRF/AICR grading		Decreases risk		Increases risk	
		Exposure	Cancer site	Exposure	Cancer site
STRONG EVIDENCE	Convincing			Processed meat	Colorectum
	Probable			Cantonese-style salted fish	Oesophagus
				Foods prepared by salting	Stomach
Limited evidence	Limited - suggestive			Preserved non-starchy vegetables	Nasopharynx
				Processed meat	Nasopharynx Oesophagus Lung Stomach Pancreas

Cancer prevention*Diet, Nutrition, Physical Activity and Cancer: a Global Perspective – The Third Expert Report, 2018*

ALCOHOLIC DRINKS					
WCRF/AICR grading		Decreases risk		Increases risk	
		Exposure	Cancer site	Exposure	Cancer site
STRONG EVIDENCE	Convincing			Alcoholic drinks	Mouth, pharynx and larynx Oesophagus Liver Colorectum Breast (postmenopausal)
	Probable	Alcoholic drinks	Kidney	Alcoholic drinks	Stomach Breast (premenopausal)
Limited evidence	Limited - suggestive			Alcoholic drinks	Lung Pancreas Skin (basal cell carcinoma and malignant melanoma)

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OTHER DIETARY EXPOSURES					
WCRF/AICR grading		Decreases risk		Increases risk	
		Exposure	Cancer site	Exposure	Cancer site
STRONG EVIDENCE	Convincing			High-dose beta-carotene supplements	Lung (in people who smoke or used to smoke tobacco)
	Probable	Calcium supplements	Colorectum	Glycaemic load	Endometrium
Limited evidence	Limited - suggestive	Healthy dietary patterns	Mouth, pharynx and Larynx	Foods and drinks containing fructose	Pancreas
		Foods containing retinol	Lung	Foods containing saturated fatty acids	Pancreas
		Vitamin D	Colorectum	Low plasma alpha-tocopherol concentrations	Prostate
		Foods containing beta-carotene	Mouth, pharynx,	Low plasma selenium concentrations	Prostate
		Multivitamin supplements	Colorectum		

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NON-ALCOHOLIC DRINKS					
WCRF/AICR grading		Decreases risk		Increases risk	
		Exposure	Cancer site	Exposure	Cancer site
STRONG EVIDENCE	Convincing			Arsenic in drinking water ¹	Lung
	Probable	Coffee	Liver Endometrium	Arsenic in drinking water	Bladder Skin (unspecified)
				Mate ³	Oesophagus (squamous)
Limited evidence	Limited - suggestive	Coffee	Mouth, pharynx and larynx Skin (basal cell ca men and women /melanoma women)	Arsenic in drinking water	Kidney
		Tea	Bladder	Mate	Mouth, pharynx and larynx

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BODY FATNESS AND WEIGHT GAIN					
WCRF/AICR grading		Decreases risk		Increases risk	
		Exposure	Cancer site	Exposure	Cancer site
STRONG EVIDENCE	Convincing			Adult body fatness	Oesophagus Pancreas Liver Colorectum Breast postmeno Endometrium Kidney
				Adult weight gain	Breast (postmeno)
	Probable	Adult body fatness	Breast (premeno)	Adult body fatness	Mouth, pharynx and larynx Stomach (cardia) Gallbladder Ovary Prostate (advanced)
		Body fatness in young adulthood	Breast (premeno) Breast (postmeno)		
Limited evidence	Limited - suggestive			Adult body fatness	Cervix (BMI \geq 29 kg/m ²)

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PHYSICAL ACTIVITY					
WCRF/AICR grading		Decreases risk		Increases risk	
		Exposure	Cancer site	Exposure	Cancer site
STRONG EVIDENCE	Convincing	Physical activity	Colorectum (colon)		
	Probable	Physical activity	Breast (postmeno) Endometrium		
		Vigorous intensity physical activity	Breast (premeno) Breast (postmeno)		
Limited evidence	Limited - suggestive	Physical activity	Oesophagus Lung Liver Breast (premeno)	Sedentary behaviors	Endometrium

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LACTATION					
WCRF/AICR grading		Decreases risk		Increases risk	
		Exposure	Cancer site	Exposure	Cancer site
STRONG EVIDENCE	Convincing				
	Probable	Lactation	Breast		
Limited evidence	Limited - suggestive	Lactation	Ovary		

Strong effect – summary of evidence matrix	Mouth, pharynx, larynx	Nasopharynx	Oesophagus adeno	Oesophagus squamo	Lung	Stomach	Pancreas	Gallbladder	Liver	Colorectum	Breast premeno	Breast postmenopausal	Ovary	Endometrium	Prostate	Kidney	Bladder	Skin	Aerodigestive ca
Wholegrain										Green									
Foods containing dietary fibre										Green									
Aflatoxins									Red										
Food containing beta-caroten																			
Non-starchy vegetables or fruits																			Green
Red meat										Orange									
Processed meat										Red									
Cantonese style salted fish		Orange																	
Dairy products										Green									
Food preserved by salting							Orange												
Arsenic					Red												Orange	Orange	
Mate				Orange															
Coffee									Green					Green					
Sugar sweetened drinks																			
Alcoholic drinks	Red			Red		Orange			Red	Red	Orange	Red					Green		
Mediterranean																			
Western type diet																			
Fast food																			
Glycemic load														Orange					
Hi-dose beta-carotene					Red														
Beta-carotene																			
Calcium supplements										Green									
Physical activity (moderate + vigorous)										Dark Green		Green		Green					
Vigorous PA											Green	Green							
Walking																			
Screen time children																			
Screen time adults																			
Adult body fatness	Orange		Red			Orange	Red	Orange	Red	Red	Green	Red		Red		Red			
Body fatness in young adulthood											Green	Green							
Adult Weight gain												Red							

Summary of evidence matrix		Mouth, pharynx, larynx	Nasopharynx	Oesophagus adeno	Oesophagus squamo	Lung	Stomach	Pancreas	Gallbladder	Liver	Colorectum	Breast premenopausal	Breast postmenopausal	Ovary	Endometrium	Prostate	Kidney	Bladder	Skin	Aerodigestive ca
Wholegrains, vegetables & fruit	Wholegrain										Green									
	Refined grains																			
	Foods containing dietary fibre										Green									
	Aflatoxins									Red										
	Non-starchy vegetables (greater intake)	Green	Green		Green	Green						Green	Green							
	Non-starchy vegetables (low intake)										Yellow									
	Preserved non-starchy vegetables		Yellow																	
	Fruit (greater intake)				Green	Green														
	Fruit (low intake)							Yellow				Yellow								
	Citrus fruit						Green													
	Non-starchy vegetables & fruit																		Green	
	Foods containing carotenoids					Green						Green	Green			Grey				
	Food containing beta-carotene					Green														
	Foods containing vit C					Green						Green								
	Foods containing isoflavones					Green														
Non-starchy vegetables or fruits (aggregated)																			Green	
Meat, fish & dairy	Red meat		Yellow			Yellow		Yellow			Orange									
	Processed meat		Yellow					Yellow			Red									
	Foods containing haem iron										Red									
	Fish									Green	Green									
	Cantonese style salted fish		Orange																	
	Grilled (broiled) or barbecued (charbroiled) meat and Dairy products							Yellow				Green	Green							
	Diets high in calcium											Green	Green						Yellow	
	Food preserved by salting							Orange												
	Arsenic in drinking water							Orange												
	Soft drinks	Mate	Yellow		Orange		Red												Yellow	Orange
Coffee		Green								Green					Green					Green
Tea																			Green	
Sugar sweetened drinks																			Green	
Alcoholic drinks		Red		Red		Yellow	Orange	Yellow		Red	Red	Orange	Red					Green		Yellow
Other dietary exposures	Healthy dietary patterns	Green																		
	Mediterranean type dietary pattern																			
	Western type diet																			
	Fast foods																			
	Glycemic load																			
	Foods & drinks containing fructose							Yellow								Orange				
	Foods containing saturated fatty acids							Yellow												
	Foods containing retinol				Green															
	Vitamin D (food containing, serum, supplements)										Green									
	Low plasma alpha-tocopherol																		Yellow	
	Low plasma selenium concentrations																		Yellow	
	Hi-dose beta-carotene supplements						Red													Grey
	Beta-carotene																			
	Calcium supplements										Green							Grey		
	Multivitamin supplements										Green									
Fitness	Physical activity			Green	Green	Green				Green	Green	Green			Green					
	Vigorous physical activity																			
	Walking																			
	Sedentary behaviors															Yellow				
	Adult body fatness	Orange		Red			Orange	Red	Orange	Red	Red	Green	Red	Yellow	Red	Orange	Red			
	Body fatness in young adulthood											Green	Green							
	Adult Weight gain												Red							