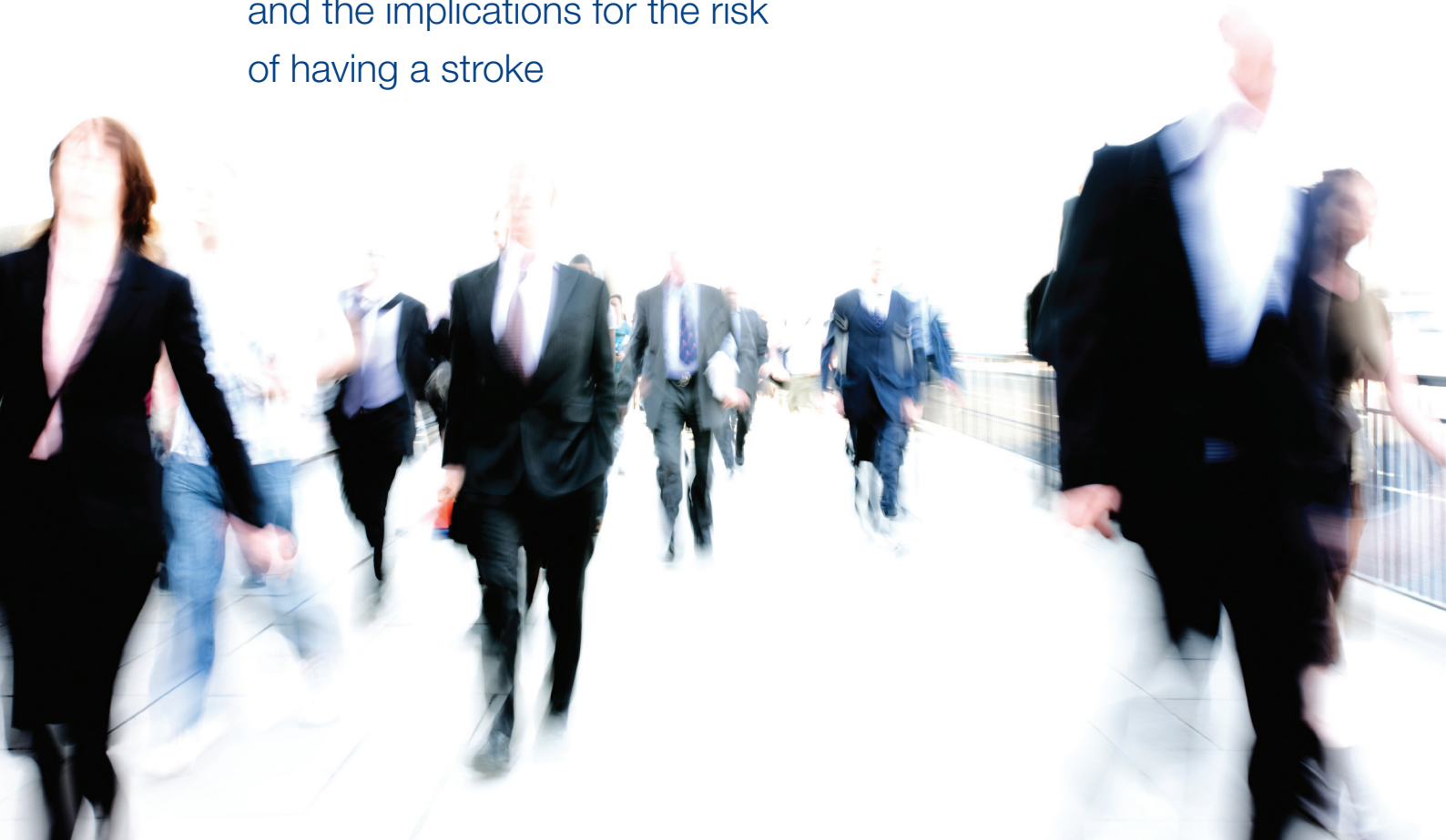


Stroke

in UK Business

How the UK workforce deals with stress
and the implications for the risk
of having a stroke



SIEMENS

Each year an estimated 150,000 people in the UK will have a stroke. A common misconception is that stroke only affects older people but around a quarter of strokes happen to people of working age, many with families and financial commitments.

Executive summary

The single biggest risk factor for stroke is high blood pressure: over 40% of strokes could be prevented through its control. The optimal blood pressure is 120/80. High blood pressure can develop for a variety of reasons such as:

- **Lifestyle factors: being overweight, drinking too much alcohol, eating an unhealthy diet, not exercising enough**
- **Age: high blood pressure is more common in middle aged and older people**
- **Other health disorders including certain kidney disorders**
- **Family history/ethnic origin**

The lifestyle factors are those over which we have most control. Improving diet, drinking and exercise habits can help reduce high blood pressure.

Stress is commonly perceived to be a factor in many health problems, including stroke. Although stress in the workplace can temporarily increase blood pressure, there is little evidence to prove a direct link between stress and stroke. But many of the things we do to cope with stress **can** lead to high blood pressure, putting us at increased risk of stroke.¹

This report looks at the working population in the UK in terms of how many of us feel stress and how we typically respond to it. A research study



strokeforstroke

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27th October - 2nd November 2008

of 1,000 people working in different industries throughout the UK has shown that our stress responses vary widely. These responses can lead to serious health problems such as heart disease, some cancers and stroke.

Exercise is one of the most positive ways to deal with stress, but it is only used by a small percentage of the working population. The Stroke Association is therefore suggesting that there are many ways in which UK businesses can, at little or no cost to themselves, adopt a much more proactive approach to encouraging their employees to exercise more regularly, helping them to cope better with the demands of their jobs in a healthy, productive way.

To kick-start employers in encouraging employees to take more physical exercise, The Stroke Association, in conjunction with GB Rowing and its High Performance Partner, Siemens, is launching “Stroke for Stroke Week” – a campaign to encourage business people to row their way to fitness while raising vital funds for The Stroke Association. Visit www.siemens.co.uk/strokeforstroke for more information.

1. Laval University, Quebec 2006

A stroke is a brain attack. It happens when the blood supply to the brain is cut, causing cells to die and resulting in brain damage.

What is stroke?

The brain controls everything we do: our emotions, our mobility, how we speak and how we think. Damage to the brain can affect any or all of these functions.

Of all those who have a stroke, around a third are likely to die within the first ten days, around a third are likely to make a recovery within one month and around a third are likely to be left with disabilities and needing rehabilitation.

There are around one million stroke survivors in the UK, half of whom require some support in daily living. Stroke can literally turn family and friends into carers overnight; each year one in five carers will give up work to care full time, potentially pushing them into isolation and financial hardship.

Each year, stroke costs the NHS around £2.8 billion (nearly £1 billion more than heart disease). These costs are made up of direct costs such as hospital stays, diagnoses, tests and rehabilitation. In total, stroke costs the wider economy around £7 billion a year, including informal care costs, lost productivity and increased benefit payments.¹

Stroke affects people of all ages, 25% of all strokes happen to people under the age of 65.



1. NAO Reducing Brain Damage: Faster access to stroke care report Nov 2005

Our research shows that 73% of working people feel stress due to their occupation.

Stress and stroke

Stress can be defined as the way we feel when under too much pressure. A moderate amount of pressure can be positive, making us more alert, motivated, and helping us perform better. However, too much pressure, or prolonged pressure, can lead to stress.

Effects of stress on the body

When stressed, the body produces more adrenaline and noradrenaline, the so-called 'fight or flight' chemicals, which prepare the body for an emergency.

Adrenaline and noradrenaline raise blood pressure, increase heart rate and make us sweat more.

The impact of stress on stroke

Stress has a huge impact on our lives with many respondents reporting that stress had led to a bad night's sleep (45%) or feeling anger (47%). 5% of respondents said that stress had caused a breakdown of a relationship with a partner.

Over 81% of the working population believe that stress puts them at risk of stroke. There is little evidence to prove a direct link between stress and stroke, but many of the things we do to combat stress can lead to high blood pressure and high cholesterol levels, increasing our risk of stroke.

Despite over half of our respondents saying that exercise did help them to 'de-stress' only 6% actually exercised for the recommended 30 minutes or more at least five times a week.

A more typical response to stress among today's workforce is likely to be to smoke, drink alcohol, eat more or even turn to recreational drugs. It is these responses to stress that can have a negative impact on health and can increase the chances of having a stroke.

We know that stress has a huge impact on our everyday lives and individually we all have our own ways of combating stress and relaxing. Many of us believe that stress is bad for our health, and hence an important issue to combat.

Dealing with stress

Relaxation is the natural answer to stress. Physical activity is an important means of relaxing and thereby reducing stress. Exercise uses up the adrenaline and other hormones the body produces when stressed and relaxes the muscles, helping strengthen the heart and improve blood circulation. Relaxation techniques such as deep breathing and stretching can also help.

This report is based on new research carried out amongst 1,000 people currently in the workplace, surveying how they cope with stress on a day to day basis.

The research found that many of the things we do to relax after a stressful day at work can raise our blood pressure and put us more at risk of stroke:

Stress response	Percentage of employees that use response to combat stress
Get angry	47
Eat	43
Cry	38
Drink	34
Smoke	23
Exercise	13
Take recreational drugs	4

Alcohol

34% of the workforce surveyed report that they drink more when stressed. Drinking more than the recommended limits of alcohol (3-4 units per day for men, 2-3 units for women) on a regular basis increases blood pressure.¹

Regular binge drinking (consuming six units or more within six hours) doubles the risk of stroke.²

Smoking

23% of the working population report that stress causes them to smoke more. Smoking 20 cigarettes a day can increase the risk of stroke by up to four times.³

Overeating

Over 40% of workers turn to food to combat stress. Consuming more calories than needed by eating high fat, processed or fast foods can lead to weight problems and obesity. Men and women who are obese are more likely to have higher blood pressure and higher blood cholesterol, increasing their risk of stroke by up to a third.⁴

1. Department of Health 2008

2. The Stroke Association - Alcohol and Stroke Fact Sheet

3. Bonita, R et al 'Passive Smoking as well as active smoking increases the risk of acute stroke' 1999

4. 'Statistics on Obesity, Physical Activity and Diet: England 2006', The Information Centre, NHS

Dealing with stress

Recreational drugs

4% of the workforce surveyed reported that they had turned to recreational drugs as a method of relieving workplace stress. Recreational drugs carry significant health risks and it has long been established that cocaine use can increase both blood pressure and heart rate, which in some people can lead to a heart attack or stroke.

A recent study by the University of Texas led by Dr. Arthur Westover (April 2007) found that cocaine use doubles the risk of stroke among younger people (18-44 years old). Furthermore, those using amphetamines increase the risk of haemorrhagic stroke five-fold.¹

Occupation

People working in different occupations experience different levels of stress and vary in their responses to it.

Marketing professionals are the most likely to drink more (59%) and to eat more (59%) when stressed than workers in any other industry.*

Those working in construction and property are the most likely (34%) to increase their levels of smoking as a response to stress.*

17% of research & development workers report that they have taken recreational drugs as a means of combating stress, the highest percentage of any occupation category.*

IT professionals and students are the most likely to exercise when stressed (26% and 28% respectively). Housewives, customer services and call centre workers are the least likely to exercise (7%).*

* See Appendix i (pages 13-14)

The top ten most stressful jobs

Occupation	Percentage of employees that find their job stressful
01 Recruitment	82
02 Legal	78
03 Education	73
04 Marketing, Advertising, PR	71
05 Health, Nursing, Social Services	70
06 Banking, Insurance, Finance	68
07 Customer Services, Call Centres	65
08 Telecommunications	65
09 Housewife, Homemaker	64
10 Retail, Wholesale	64

1. RCN April 2007

Dealing with stress

Occupational breakdown of employee responses to stress (%)

Occupation	Smoke	Drink	Exercise	Eat	Get angry	Cry	Drugs*	Sleep**
Recruitment	24	35	18	53	41	47	12	59
Legal	15	45	13	48	48	50	3	53
Education	16	29	13	45	37	42	2	47
Marketing, Advertising, PR	29	59	18	59	53	41	3	53
Health, Nursing, Social Services	30	33	12	46	51	48	3	54
Banking, Insurance, Finance	18	38	16	43	48	40	9	44
Customer Services, Call Centres	30	38	7	45	45	42	5	43
Telecommunications	29	29	12	47	29	29	6	53
Housewife, Homemaker	30	25	7	45	51	57	8	43
Retail, Wholesale	28	27	8	43	48	37	2	49

***Take recreational drugs **Bad night's sleep**

Dealing with stress

Age

Stress levels were highest in the younger respondents with over 60% of those aged 22-35 reporting high stress levels.

51-55 year olds are the most likely to smoke more as a result of stress (28%).

22-35 year olds are the most likely to drink more as a result of stress (37%).

The youngest respondents, those under 21 years old, are the most likely to use exercise to deal with stress (average 23%), but those between 19-25 are also the most likely to turn to recreational drugs (6%).

Age group	Percentage of employees that find their job stressful
16 - 18	54
19 - 21	58
22 - 25	62
26 - 30	61
31 - 35	66
36 - 40	58
41 - 45	63
46 - 50	62
51 - 55	62
56+	62

Age breakdown of employee responses to stress (%)

Age group	Smoke	Drink	Exercise	Eat	Get angry	Cry	Drugs*	Sleep**
16 - 18	16	32	24	37	44	26	5	24
19 - 21	22	31	22	50	58	50	6	43
22 - 25	26	37	14	45	50	42	6	47
26 - 30	22	37	15	45	46	37	5	41
31 - 35	22	37	13	46	43	40	3	48
36 - 40	26	33	9	42	45	41	2	48
41 - 45	21	27	7	39	54	32	1	55
46 - 50	18	30	12	42	42	39	2	53
51 - 55	28	30	8	40	46	33	0	56
56+	15	22	10	27	39	15	0	42

*Take recreational drugs **Bad night's sleep

Dealing with stress

Region

Workers in Northern Ireland feel the most stressed (70%) with those in the South West feeling the least stressed (54%).

People in Northern Ireland are the most likely to smoke due to stress (33%), whereas workers in the North West and Yorkshire are the most likely to turn to drink (37%).

The most likely to use exercise to reduce stress levels are those in the South West (16%) and Wales (15%). Londoners are the most likely to use drugs (6%).

UK region	Percentage of employees that find their job stressful
Northern Ireland	70
South East	65
West Midlands	64
London	64
Scotland	63
Yorkshire/Humber	62
East Anglia	61
North East	61
East Midlands	61
North West	59
Wales	56
South West	54

Regional breakdown of employee responses to stress (%)

UK region	Smoke	Drink	Exercise	Eat	Get angry	Cry	Drugs*	Sleep**
East Anglia	18	25	10	49	50	44	0	49
East Midlands	14	35	9	46	43	36	1	48
London	20	35	14	45	48	37	6	45
North East	20	36	14	42	44	36	3	51
North West	29	37	13	38	54	40	4	42
Northern Ireland	33	33	11	48	44	37	4	44
Scotland	25	36	14	42	52	37	2	57
South East	25	32	12	51	55	42	5	48
South West	20	30	16	39	40	37	1	46
Wales	19	34	15	49	44	44	3	48
West Midlands	24	28	11	39	40	38	4	42
Yorkshire/Humber	24	37	12	43	44	35	3	40

*Take recreational drugs **Bad night's sleep

Dealing with stress

Gender

Our findings showed that women feel more stress in the workplace than their male counterparts (64% compared with 56%).

Responses to stress vary between the genders, with 24% of women smoking more when stressed, compared with 19% of men.

48% of women turn to food when stressed compared to 32% of men.

Women are more likely than men to cry when stressed (50% and 11% respectively).

Gender	Percentage of employees that find their job stressful
Female	64
Male	56

Gender breakdown of employee responses to stress (%)

Gender	Smoke	Drink	Exercise	Eat	Get angry	Cry	Drugs*	Sleep**
Male	19	35	14	32	45	11	4	40
Female	24	33	13	48	48	50	3	48

*Take recreational drugs **Bad night's sleep

It is clear that stress is a big factor in modern day lives across most occupations.

Conclusion

This report does not focus on the causes of stress, but looks at typical responses to it and the health implications of those choices, especially in terms of increasing the risk of high blood pressure and, subsequently, increased risk of serious illnesses such as stroke.

According to the Confederation of British Industry the cost of absence due to ill health is an estimated £13bn per year and the cost of work-related stress could be £4.25bn.¹ 19% of respondents in our research admitted that stress had caused them to take days off.

It makes sense from a health and an economic perspective to keep a healthy workforce. Encouraging people to deal with stress in a healthy way could be a vital step towards reducing absenteeism and long-term ill health.

Whilst it is important for individual employees to take steps to maintain a healthy lifestyle, employers should be taking steps to encourage more workers to take regular exercise.

Government guidelines recommend that we exercise for a minimum of 30 minutes a day at least five times a week. With less than 10% of the workforce managing to achieve this goal, and with people spending a large amount of their

time at work, the role of employers in increasing exercise amongst employees is crucial.

In May 2008 the National Institute for Clinical Excellence (NICE) issued guidelines for employers to promote physical activity amongst the workforce.

NICE recommends that organisations:

- **Develop a plan or policy across the organisation to encourage and support employees to be physically active, then introduce and monitor a programme based on the plan. This could be part of a broader programme to improve health.**
- **Encourage employees to walk, cycle or use another mode of transport involving physical activity to travel part or all of the way to and from work.**
- **Help employees to be physically active during the working day. For example providing information about walking or cycling routes or putting up signs to encourage them to use the stairs.**

1. Health & Safety in the Workplace 2006

Conclusion

The Stroke Association and Siemens fully endorse these recommendations and call for employers to do everything possible to promote regular exercise among their staff.

There are many things that employers can do, with initiatives including negotiating a discounted membership with a local gym and allowing staff the flexibility to visit at different times of the day. Companies could also encourage fitness classes such as yoga or pilates in the workplace at lunchtime or after work. Under the government's Cycle to Work scheme, employers can offer cycle loans, with the repayments taken out before tax, giving their employees a cheaper way to buy a new bike. Another option would be for employers to promote their own in-house fitness challenge so all their employees can take part and keep fit.

An initiative that UK businesses can get involved in now is Stroke for Stroke Week, a rowing campaign supported by Siemens and GB Rowing. It aims to raise awareness of the importance of regular exercise in stroke prevention and to raise vital funds for The Stroke Association.

Visit www.siemens.co.uk/strokeforstroke for more information.



Stroke Helpline: 0845 3033 100
www.stroke.org.uk

Appendix (i): Stroke in UK business (part 1)

Occupational breakdown of employee responses to stress (%)

Occupation	Smoke	Drink	Exercise	Eat	Get angry	Cry	Drugs*	Sleep**
Recruitment	24	35	18	53	41	47	12	59
Legal	15	45	13	48	48	50	3	53
Education	16	29	13	45	37	42	2	47
Marketing, Advertising, PR	29	59	18	59	53	41	3	53
Health, Nursing, Social Services	30	33	12	46	51	48	3	54
Banking, Insurance, Finance	18	38	16	43	48	40	9	44
Customer Services, Call Centres	30	38	7	45	45	42	5	43
Telecommunications	29	29	12	47	29	29	6	53
Housewife, Homemaker	30	25	7	45	51	57	8	43
Retail, Wholesale	28	27	8	43	48	37	2	49
Sales	28	40	14	44	42	24	6	50
Travel, Leisure, Tourism	26	34	8	54	64	46	6	48
Catering & Hospitality	29	40	24	38	48	29	0	29
Engineering, Manufacturing, Utilities	22	28	15	29	49	15	0	42
IT	26	41	26	33	37	22	15	30
Student	14	33	28	47	56	48	6	39

***Take recreational drugs **Bad night's sleep**

Appendix (i): Stroke in UK business (part 2)

Occupational breakdown of employee responses to stress (%)

Occupation	Smoke	Drink	Exercise	Eat	Get angry	Cry	Drugs*	Sleep**
Transport, Logistics, Aerospace	20	31	11	31	60	20	0	56
Accountancy	15	19	12	41	35	26	0	39
Charities	22	37	9	39	48	37	0	43
Computers, Software	10	28	15	49	44	21	3	44
Secretarial, PAs, Administration	24	37	9	49	53	47	0	52
Internet Professionals	24	36	8	44	51	30	0	45
Human Resources	17	50	13	29	46	42	0	46
Education, Training and Library	20	33	18	40	33	38	4	40
Construction/Property Development	34	41	14	34	45	16	2	32
Media, Creative	14	48	16	36	43	43	5	52
Science	19	24	24	33	43	33	14	71
Research and Development	21	38	25	38	54	38	17	38
Graduate, Trainees	18	45	18	64	45	27	9	27
Electronics	11	11	11	22	56	11	0	33
Agriculture, Fishing and Forestry	19	19	19	19	6	13	13	13

***Take recreational drugs **Bad night's sleep**

Appendix (ii): Stroke in UK business

Do you find your job stressful?

Occupation	Yes	No
Recruitment	82	18
Legal	78	22
Education	73	27
Marketing, Advertising, PR	71	29
Health, Nursing, Social Services	70	30
Banking, Insurance , Finance	68	32
Customer Services, Call Centres	65	35
Telecommunications	65	35
Housewife, Homemaker	64	36
Retail, Wholesale	64	36
Sales	64	36
Travel, Leisure, Tourism	62	38
Catering & Hospitality	62	38
Engineering, Manufacturing, Utilities	60	40
IT	59	41
Student	59	41
Transport, Logistics, Aerospace	58	42
Accountancy	55	45
Charities	57	43
Computers, Software	56	44
Secretarial, PAs, Administration	56	44
Internet Professionals	55	45
Human Resources	54	46
Education, Training and Library	53	47
Construction/Property Development	50	50
Media, Creative	48	52
Science	48	52
Research and Development	46	54
Graduate, Trainees	44	56
Electronics	44	56
Agriculture, Fishing and Forestry	31	69

Appendix (iii): Map



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How the UK workforce deals with stress

