



## STROKE

### Change in Trend Noted for US Stroke Death Rates

A study conducted by researchers at the Centers for Disease Control and Prevention suggests that the rate of decline in US stroke death rates has slowed and even increased slightly in recent years.<sup>1</sup>

Yang and colleagues examined trends and patterns in stroke death rates among US adults aged 35 and older by age, sex, race/ethnicity, state, and census region by analyzing death data from the US National Vital Statistics System during 2000-2015, with stroke of all subtypes reported as the underlying cause of death. According to their article in *Morbidity and Mortality Weekly Report*, the annual percent change (APC) in stroke death rates decreased 3.4% per year during 2000-2003, decreased 6.6% per year during 2003-2006, decreased 3.1% per year during 2006-2013, and increased 2.5% (nonsignificant) per year during 2013-2015.<sup>1</sup>

The highest stroke death rate was seen in blacks, and the stalling of the rate of decline in this group started in 2012. In 2013 the stroke death rate trend reversed among Hispanics, changing from a 3.6% decline per year between 2000 and 2013 to a 5.8% increase per year between 2013 and 2015. For American Indian/Alaska Natives, stroke death rates continued to decline between 2000 and 2015. In the South census region, stroke death rate APCs reversed in 2013, from a 3.3% decline per year between 2006 and 2013 to a 4.2% increase per year between 2013 and 2015. The decline in stroke death rates slowed or stalled in the last trend segment for the West, Northeast, and Midwest census regions (APC of 0.6%, 0.7%, and 1.5%, respectively).

1. Yang Q, Tong X, Schieb L, et al. Vital signs: recent trends in stroke death rates—United States, 2000-2015. *MMWR Morb Mortal Wkly Rep*. 2017;66:933-939.



## DEGENERATIVE DISEASES

### Study Finds Strong Link Between Virus Responsible for Mono and Risk of MS

Individuals with Epstein-Barr virus (EBV) seropositivity are at higher risk of developing multiple sclerosis (MS), according to a study published in *Neurology*.<sup>1</sup>

EBV and cytomegalovirus (CMV) have previously been associated with MS risk in whites. Researchers recruited incident cases of MS or its precursor, clinically isolated syndrome (CIS), and matched controls (blacks: 111 cases/128 controls; Hispanics: 173/187; whites: 235/256) to determine whether black or Hispanic individuals with blood

serum positive for EBV or CMV are at risk of MS and to what extent measures of the hygiene hypothesis or breastfeeding could explain these findings. Logistic regression models accounted for HLA-DRB1\*1501 status, smoking, socioeconomic status, age, sex, genetic ancestry, and country of birth.

Epstein-Barr nuclear antigen-1 (EBNA-1) seropositivity was independently associated with increased odds of MS/CIS in all three racial/ethnic groups ( $P < .001$  for blacks and whites,  $P = .02$  for Hispanics), whereas CMV seropositivity was associated with a lower risk of MS/CIS in Hispanics ( $P = .004$ ) but not in blacks ( $P = .95$ ) or whites ( $P = .96$ ). For Hispanics, being born in a low- or middle-income country was associated with a lower risk of MS ( $P = .02$ ), but not after accounting for EBNA-1 seropositivity. Breastfeeding did not diminish the association between CMV and MS in this group.

1. Langer-Gould A, Wu J, Lucas R, et al. Epstein-Barr virus, cytomegalovirus, and multiple sclerosis susceptibility: a multiethnic study. *Neurology*. 2017;89(6):563-569.

### Lupus Risk Triples in Women Who Experience Trauma

Psychosocial trauma and associated stress responses may lead to development of an autoimmune disease, a study published in *Arthritis & Rheumatology* finds.

In a longitudinal study examining whether trauma exposure and posttraumatic stress disorder (PTSD) are associated with increased risk of incident systemic lupus erythematosus (SLE), researchers evaluated 54,763 women from a US civilian cohort. Incident SLE with four or more American College of Rheumatology criteria was ascertained by self-reporting and confirmed by medical record review. Additionally, PTSD and trauma exposure were assessed with the Short Screening Scale for DSM-IV PTSD and the Brief Trauma Questionnaire. Patients were classified as having no trauma, trauma and no PTSD symptoms, subclinical PTSD (1-2 symptoms), or probable PTSD (4-7 symptoms).

The researchers identified 73 cases of SLE during follow-up. Smoking, body mass index, and oral contraceptive use slightly reduced associations with SLE risk (probable PTSD—adjusted hazard ratio [HR] 2.62, 95% CI [1.09, 6.48];  $P < .05$ ). The researchers also found that trauma exposure, regardless of PTSD symptoms, was strongly associated with incident SLE (HR 2.87, 95% CI [1.31, 6.28];  $P < .01$ ). ■

1. Roberts AL, Malspeis S, Kubzansky LD, et al. Association of trauma and posttraumatic stress disorder with incident systemic lupus erythematosus (SLE) in a longitudinal cohort of women [published online ahead of print September 20, 2017]. *Arthritis Rheumatol*.

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