



**For immediate release**

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## **Global climate change, gender differences and disease prevention among the EurekAlert! 10 Most Popular Stories in 2007**

Global climate change was a leading topic of interest for EurekAlert! users in 2007. This interest was reflected through two stories that portrayed significantly different messages about the future of Earth's climate.

The EurekAlert! 10 Most Popular Stories in 2007 were identified by monitoring Web site traffic and isolating the news releases that received the highest total number of visits between January and December of 2007. The most popular story of the year received over 180,000 visits.

Aside from global climate change, other topics of most interest to users included studies into the health risks associated with prostate cancer and rheumatoid arthritis, the prevention of Down syndrome, new theories involving matter and the speed of light, the discovery of a dinosaur species in Antarctica, and gender differences across a range of activities from the handling of anxiety to pornography use. The full compilation is listed at the end of the release while highlights and trends follow below.

### **Global Climate Change**

The most popular story in 2007 focused on a study conducted by NASA scientists that suggested greenhouse-gas warming may raise average summer temperatures in the eastern United States by nearly 10 degrees Fahrenheit by 2080. Meanwhile, the third most popular story was based on an Ohio State University study that showed temperatures in Antarctica during the late 20th century did not climb as had been predicted by many global climate models. Most models predict that both precipitation and temperature will increase over Antarctica with a warming of the planet.

The NASA weather model, one of the models used in the recently issued climate report by the Intergovernmental Panel on Climate Change, showed that extreme summertime surface temperatures developed when carbon dioxide emissions were assumed to increase about 2 percent a year, the "business as usual" scenario.

David Bromwich, professor of atmospheric sciences in the Department of Geography, and researcher with the Byrd Polar Research Center at Ohio State University, reported however, "It's hard to see a global warming signal from the mainland of Antarctica right now."

Bromwich said “the best we can say right now is that the climate models are somewhat inconsistent with the evidence that we have for the last 50 years from continental Antarctica.” Bromwich explained that disagreement between climate model predictions and the snowfall and temperature records doesn’t necessarily mean that the models are wrong.

## **Health and Disease Prevention**

Millions of Americans take multivitamins because of a belief in their potential health benefits, even though there is limited scientific evidence that they prevent chronic disease. Investigating this line of thinking, a National Cancer Institute study, led by Karen Lawson, found no association between multivitamin use and the risk of localized prostate cancer -- the second most popular story in 2007. However, they did find an increased risk of advanced and fatal prostate cancer among men who used multivitamins more than seven times a week, compared with men who did not use multivitamins.

The association was strongest in men with a family history of prostate cancer and men who also took selenium, beta-carotene or zinc supplements.

Another story among the most popular in 2007 focused on two Swedish studies that identified smoking, a low formal level of education and certain metabolic indicators as important risk factors in the development of rheumatoid arthritis. These findings represent a significant step towards better understanding of the risk factors for RA and may contribute to improved future prevention and treatment.

The second study similarly highlights the link between smoking and RA, but -- contrary to previously noted relationships between RA with active inflammation and impaired glucose tolerance -- observes better glucose tolerance as a predictor of RA. Thus the authors suggest that factors such as diet and genetics influencing metabolism may play an important part in RA development.

Dr. Ulf Bergström from the Malmö University Hospital, Sweden, lead investigator on both studies said “The determinants for developing RA in any population are clearly complex and often unrelated. These studies help us to add more pieces to the giant jigsaw of risk factors for one of the most common autoimmune diseases, affecting approximately 1 percent of adults worldwide.”

A third story related to health -- ranked sixth most popular -- featured a Denmark study showing that noninvasive screening of pregnant women using ultrasound early in pregnancy, combined with maternal blood analysis, reduced the number of children born with Down syndrome by 50 percent.

Karen Brøndum-Nielsen, of the Kennedy Institute, Glostrup, Denmark, and lead study author, noted that following a change in national health guidelines making the screening procedures more widely available, localities with women using the screenings showed a marked difference in the prevalence of Down syndrome. Brøndum-Nielsen and her team looked at the effects of the new guidelines in 2004, 2005 and 2006, in three counties in Denmark with a total population of 1.1 million inhabitants, or about one-fifth of the population of the country. They compared these findings with national figures obtained from

the Central Cytogenetic Registry, which confirmed the reduction in invasive procedures and the number of children born with Down syndrome at national level.

## **Gender Differences**

In the fourth most popular story, a researcher at the University of Missouri-Columbia found that girls who talk extensively about their problems with friends are likely to become more anxious and depressed. The six-month study, which included boys and girls, examined the effects of co-rumination -- excessively talking with friends about problems and concerns. The study revealed that girls co-ruminate more than boys, especially in adolescence, and that girls who co-ruminated the most in the fall of the school year were most likely to be more depressed and anxious by the spring.

Amanda Rose, associate professor of psychological sciences in the College of Arts and Science, conducted the study and said “What’s intriguing about these findings is that co-rumination likely represents too much of a good thing. Some kids, especially girls, are taking talking about problems to an extreme. When that happens, the balance tips, and talking about problems with friends can become emotionally unhealthy.”

Meanwhile, a University of Alberta study -- the final story in the list -- showed that boys aged 13 and 14 living in rural areas, are the most likely of their age group to access pornography. A total of 429 students aged 13 and 14, from 17 urban and rural schools across Alberta, Canada, were surveyed anonymously about if, how and how often they accessed sexually explicit media content on digital or satellite television, video and DVD and the Internet.

Ninety percent of males and 70 percent of females reported accessing sexually explicit media content at least once. More than one third of the boys reported viewing pornographic DVDs or videos “too many times to count,” compared to eight percent of the girls surveyed.

The study also revealed different patterns of use between males and females, with boys doing the majority of deliberate viewing, and a significant minority planning social time around viewing pornography with male friends. Girls reported more accidental or unwanted exposure online and tend to view pornography in same-gender pairs or with mixed groups.

Two stories -- both published in New Scientist -- about new theories involving the state of matter and the speed of light, and a story about the discovery of a new genus and species of dinosaur, *Glacialisaurus hammeri*, rounded out the list.

## **10 Most Popular Stories List**

The titles of the 10 most popular stories in 2007 follow below in order of popularity, with the most-viewed story listed first:

1. [NASA study suggests extreme summer warming in the future](http://www.eurekalert.org/pub_releases/2007-05/nsfc-nss050907.php)  
NASA/Goddard Space Flight Center  
[http://www.eurekalert.org/pub\\_releases/2007-05/nsfc-nss050907.php](http://www.eurekalert.org/pub_releases/2007-05/nsfc-nss050907.php)

2. [Heavy multivitamin use may be linked to advanced prostate cancer](http://www.eurekalert.org/pub_releases/2007-05/jotn-mu051007.php)  
Journal of the National Cancer Institute  
[http://www.eurekalert.org/pub\\_releases/2007-05/jotn-mu051007.php](http://www.eurekalert.org/pub_releases/2007-05/jotn-mu051007.php)
3. [Antarctic temperatures disagree with climate model predictions](http://www.eurekalert.org/pub_releases/2007-02/osu-atd021207.php)  
Ohio State University  
[http://www.eurekalert.org/pub\\_releases/2007-02/osu-atd021207.php](http://www.eurekalert.org/pub_releases/2007-02/osu-atd021207.php)
4. [Girls who complain about their problems at greater risk of developing anxiety and depression](http://www.eurekalert.org/pub_releases/2007-07/uom-gwc071307.php)  
University of Missouri-Columbia  
[http://www.eurekalert.org/pub\\_releases/2007-07/uom-gwc071307.php](http://www.eurekalert.org/pub_releases/2007-07/uom-gwc071307.php)
5. [Smoking, low levels of education and glucose tolerance increase risk of rheumatoid arthritis](http://www.eurekalert.org/pub_releases/2007-06/cwh-sll061507.php)  
European League Against Rheumatism  
[http://www.eurekalert.org/pub\\_releases/2007-06/cwh-sll061507.php](http://www.eurekalert.org/pub_releases/2007-06/cwh-sll061507.php)
6. [Noninvasive screening in early pregnancy reduces Down's births by 50 percent](http://www.eurekalert.org/pub_releases/2007-06/esoh-nsi061307.php)  
European Society of Human Genetics  
[http://www.eurekalert.org/pub\\_releases/2007-06/esoh-nsi061307.php](http://www.eurekalert.org/pub_releases/2007-06/esoh-nsi061307.php)
7. [Massive dinosaur discovered in Antarctica sheds light on life, distribution of sauropodomorphs](http://www.eurekalert.org/pub_releases/2007-12/fm-mdd121007.php)  
Field Museum  
[http://www.eurekalert.org/pub\\_releases/2007-12/fm-mdd121007.php](http://www.eurekalert.org/pub_releases/2007-12/fm-mdd121007.php)
8. [Have researchers found a new state of matter?](http://www.eurekalert.org/pub_releases/2007-03/ns-hrf031407.php)  
New Scientist  
[http://www.eurekalert.org/pub\\_releases/2007-03/ns-hrf031407.php](http://www.eurekalert.org/pub_releases/2007-03/ns-hrf031407.php)
9. [Light seems to defy its own speed limit](http://www.eurekalert.org/pub_releases/2007-08/ns-lst081607.php)  
New Scientist  
[http://www.eurekalert.org/pub\\_releases/2007-08/ns-lst081607.php](http://www.eurekalert.org/pub_releases/2007-08/ns-lst081607.php)
10. [1 in 3 boys heavy porn users, study shows](http://www.eurekalert.org/pub_releases/2007-02/uoa-oit022307.php)  
University of Alberta  
[http://www.eurekalert.org/pub\\_releases/2007-02/uoa-oit022307.php](http://www.eurekalert.org/pub_releases/2007-02/uoa-oit022307.php)

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### **About EurekAlert!**

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## **About AAAS**

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