

Upticks of 'Christmas Coronaries' and 'New Year's Heart Attacks' real? Yes!



By Jamie Wells, M.D. — December 26, 2016



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With the evidence already established regarding known upticks of cardiac deaths (aka heart-related) on Christmas and New Year's, a new study seeks to elucidate if winter is a main culprit.

A [team from Australia and New Zealand](#) [2] recently endeavored to expand upon the canon, in particular, on Phillips et al's work published in the journal *Circulation* in 2004: [Cardiac mortality is higher around Christmas and New Year's than at any other time: The holidays as a risk factor for death](#) [3]. Here, the United States' researchers analyzed death certificates in both heart and non heart diseases in a larger dataset than previously performed (n=53 million) over a longer time frame (1973-2001) and nationwide.

They hypothesized “every year, during the Christmas/New Year's holiday season, millions of Americans abruptly change their patterns of traveling, eating, drinking, exercising, working, and vacationing. These large-scale behavioral changes may affect cardiac mortality. Some patients might inappropriately delay seeking necessary medical treatment until after the holidays; others who are traveling might take longer than usual to find competent medical help.” (1)

Their work—built on prior study by Kloner et al that was limited to Los Angeles—determined a spike in daily mortality exists during this holiday period being significantly large for those dead on arrival to the hospital (DOA) or dying in the emergency room (ER) or as an outpatient. This group (especially) peaks on these twin holidays and the data revealed growth “proportionately larger over time”—December 25 (1st highest than any other day of the year), December 26 (2nd), January 1 (3rd). This investigation considered ten reasons (e.g. emotional stress, travel-related to delay of care or diminished access, changes in diet and alcohol consumption, postponement or

precipitation of death etc...) for the holiday effect, but recognized future work was vital to exploring the validity of the answer and “desegregating whether some of this increase results from the winter holidays rather than from the winter itself.” (2)

According to the [American Heart Association](#) [4], the Kloner 1999 examination of 222,265 death records from Los Angeles yielded “cardiac deaths in December and January were 33 percent higher than in summer months, with a dramatic increase in deaths starting at Thanksgiving and continuing through New Year’s.” (3)

In 2010, [Christmas and New Year as risk factors for death](#) [5] was published in *Social Science and Medicine*. It suggested—among other notions— if we can identify the troughs then we might make head way in reversing the impact while presenting some evidence that ER-overcrowding can be a contributing factor. It concludes: “the two weeks starting with Christmas are associated with an excess of 42,325 natural deaths over a 25 year period.” (4)

In the just published [Revisiting the ‘Christmas Holiday Effect’ in the Southern Hemisphere](#) [2], the scientists analyzed New Zealand mortality data for a 25-year period in a parallel fashion to the USA 2004 one. Given their respective celebrations take place in the summer, they pursued the goal of determining if seasonality influences this known holiday effect.

The results: “Our findings are consistent with a previously reported study conducted in the United States, suggesting that cardiac mortality does not take a ‘summer break’... We found that 4.2% more persons die from a cardiac-related cause outside of a hospital during the Christmas period than would be expected based on long-term seasonal trend” and “the age of death was younger for those who died from a cardiac-related condition during the Christmas period compared with those who died of a similar condition during the remainder of the year and in the pre-Christmas period.” (5)

It was previously believed the [winter component and inclement nature of that weather](#) [6] was a driving force. Since the Southern Hemisphere data appears to mimic that of the Northern Hemisphere, the aforementioned is less likely. These analysts claim their data further diminishes as causes the reasoning that increased particulate pollution (which occurs due to increased heating in winter), a reporting effect, respiratory illnesses and a month-boundary effect are main triggers.

The scientists make the case for inappropriate delay in seeking medical care and the capacity for “displacement of death” (defined by the “ability of persons to modify their date of death on the basis of dates of significance”). (6)

In summary...

Additional work to tease out ‘why’ will be required to compel a sizable shift in this longstanding public health trend. It is more likely the holiday and what is involved pushes over the edge existing heart disease than a nascent issue.

Now, seasonality and the winter state are lowered on the differential list as instigators of the

“holiday effect.” This doesn’t mean being sensible to avoid the dangers of winter lacks value: [Winter is no wonderland](#) [6]. Common sense to prevent unnecessary stressors from preventable winter accidents and adverse outcomes is highly recommended. Certainly, there are health hazards to your climate: [Top Cause of Death: Geography](#) [7].

But, as I have written here, repeatedly, the impact of toxic stress is showcased again and again in the literature, in particular, with respect to cardiac events. Review [Don’t go breaking my heart, Literally!](#) [8] to suss out its impact on global acute heart attacks and their timing. Read here to review the diffuse effects on the body: [Hillary Clinton vs. Donald Trump: Who's got the stamina?](#) [9]

Stress with respect to this issue, for example, can be manifested by one’s approach to the challenges of modern travel, preparing for the holiday itself to visiting family where strife or conflict are key features to financial and health-related, in general. How you approach it matters: [Pessimism Kills...Slowly.](#) [10]

Furthermore, delay of care and that of the most experienced personnel are suspected major perpetrators. Hospitals typically provide a skeleton crew at night, weekends and during the holidays. These have concrete negative results: [To survive the hospital, make sure your heart stops on a weekday](#) [11]. Due to travel to remote locations as well as temporally protracted vital interventions, the numbers are consistently poor for those who receive delayed resuscitation and proper evaluation, as evidenced here: [Want a nation of super heroes? Early CPR makes every second count!](#) [12]

Seeking early and immediate medical care upon presentation of symptoms is important to remember during the holidays and year-round. Being aware of it and having a plan should a circumstance arise might serve to lessen the untoward consequence. Maintaining routine medications and lifestyle modification efforts throughout the festive times will tend to be of great benefit as well.

This realization is not intended to be an ominous one. Instead, use this knowledge as a reminder to minimize your stress, be conscientious with known medical issues opting not to put off assessments and meds ever but especially during these times. Attempt to find the joy instead of the frustration in the holidays as your heart might just thank you for it.

Sources:

(1), (2) Phillips et al. [Cardiac mortality is higher around Christmas and New Year’s than at any other time: The holidays as a risk factor for death](#) [3]. *Circulation*. 2004;110:3781-3788.

(3) American Heart Association News. [Avoiding deadly holiday heart attacks](#) [4].

(4) Phillips D, Barker G et al. [Christmas and New Year as risk factors for death](#) [5]. *Social Science and Medicine*. 71(2010) 1463-1471.

(5) (6) Knight et al. [Revisiting the “Christmas Holiday Effect” in the Southern Hemisphere](#) [2]. *Journal of the American Heart Association*. 2016;5:e005098.

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Links

[1] <http://www.shutterstock.com>

[2] <http://jaha.ahajournals.org/content/5/12/e005098>

[3] <http://circ.ahajournals.org/content/110/25/3781>

[4] <http://news.heart.org/avoiding-deadly-holiday-heart-attacks>

[5]

http://pages.ucsd.edu/~dphillip/christmas_and_new_year_as_risk_factors_for_death_phillips_barker_brewer.pdf

[6] <http://acsh.org/news/2016/12/01/winter-no-wonderland-10514>

[7] <http://acsh.org/news/2016/12/14/top-cause-death-geography-10593>

[8] <http://acsh.org/news/2016/10/13/don't-go-breaking-my-heart-literally-10291>

[9] <http://acsh.org/news/2016/09/30/hillary-clinton-vs-donald-trump%C2%A0who's-got-stamina-10234>

[10] <http://www.acsh.org/news/2016/11/29/pessimism-killsslowly-10491>

[11] <http://www.acsh.org/news/2016/11/07/survive-hospital-make-sure-your-heart-stops-weekday-10406>

[12] <http://acsh.org/news/2016/11/16/want-nation-super-heroes-early-cpr-makes-every-second-count-10440>