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HCQU Staff

# HEALTHY CONNECTIONS

THE QUARTERLY NEWSLETTER OF COMMUNITY HEALTH CONNECTIONS

WINTER 2012

## Helpful Tips for Preventing C-Diff

- Hand washing, especially soap and warm water because alcohol-based hand sanitizers are not effective for destroying C-Diff



- Contact precautions (wearing gloves and gowns when in

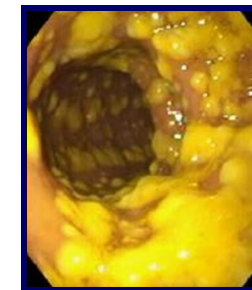
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## C-Diff Kills

**By: Margie Fend, RN; Health Services Consultant**

According to the Center for Disease Control, Clostridium Difficile (C-Diff) kills thousands of people every year and the numbers are continuing to grow! Between 1 to 2 percent of patients who go into the hospital will develop C-Diff. Health Care costs of \$3.5 billion in the U.S. alone and it's rising rapidly because of new, even more virulent strains. It is a bacteria that attacks your intestines, which contains millions of "good" bacteria that protect your body from infection. When you take an antibiotic to treat an infection, the medication can destroy some of the normal "good" bacteria as well as the "bad" bacteria causing the infection. Once a C-diff bacteria is established in the colon, it can produce toxins that attack the lining of the colon. The antibiotics that most often lead to C-Diff infections include: fluoroquinolones, cephalosporins, clindamycin and penicillins. C-Diff usually develops during, or shortly after, a course of antibiotics. The symptoms of C-Diff can range from diarrhea to life-threatening inflammation of the colon. Illness from C-

Diff has most commonly affected older adults in the hospital or in long term care facilities because of the excessive use of antibiotics. This also includes some other wise healthy people (both young and old) who aren't hospitalized or taking antibiotics.



Infected colon

Symptoms of C-Diff can be: mild diarrhea (3 or more episodes per day) to severe diarrhea (10 to 15 episodes per day), a fever, mild to moderate abdominal pain and cramps, blood or pus in stool, foul smelling stool, and loss of appetite. Do not use over the counter anti-diarrheal medications such as Imodium, unless instructed by the physician.

Here are some things you need to know...

*(Continued on page 2)*

(Continued from page 1)

contact)

- Thorough cleaning of all surfaces with a product containing bleach
- Avoid unnecessary use of antibiotics (antibiotics are sometimes prescribed for viruses)
- Probiotics may be an option, talk to your doctor
- Eat yogurt while on antibiotics

### Risk factors for C-Diff:

- Using antibiotics, especially broad spectrum antibiotics that cover a wide range of bacteria
- Being age 65 or older (the risk is 10 times greater)
- Being hospitalized or a recent hospitalization, especially for an extended period of time
- Having a weakened immune system, serious underlying illness, such as cancer, or treatment such as chemotherapy
- Recent abdominal surgery or gastrointestinal procedure
- Having colon diseases, such as inflammatory bowel disease or colorectal cancer
- Past C-Diff infections

### Complications of C-Diff can be:

- Dehydration, due to severe diarrhea
- Kidney failure, if dehydration happens quickly it can cause kidney function to deteriorate
- Bowel Perforation (hole in large intestine) can lead to peritonitis
- Toxic Megacolon (colon becomes

grossly distended and unable to expel gas and stool)

- Death, even mild to moderate C-Diff infections can quickly progress to a fatal disease

Treatment can be antibiotic such as Flagyl or Vancomycin (keeps C-Diff from growing and allows good bacteria to thrive), probiotics, or surgery depending on the severity of the disease.

Further studies are being conducted to look at new treatment options such as a natural defense mechanism used by cells in the gut to neutralize harmful toxins.



Bacteria

Remember, C-Diff is a bacteria that produces spores that persist on any surface for weeks or months. If you touch a surface that may be contaminated, you may unknowingly ingest the bacteria! Good hand washing, good nutrition, staying hydrated, and less use of antibiotics (unless necessary) are key to lowering your risk of C-Diff.

For more information or questions about C-Diff, please contact Community Health Connections at (724) 283-0990.

## New Resource: Home Safety Checklist

**Home Safety Checklist**

Community Health Connections  
1200 Westwood Dr., Suite 302  
Warren, PA 15085  
(724) 283-0990  
www.hcqu.org

A new resource developed by Community Health Connections is the Home Safety Checklist. This tool can be used by families and caregivers to take a closer look at the home environment to ensure that optimum safety is provided.

**Home Safety Checklist**

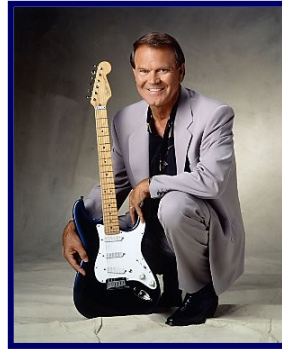
Community Health Connections  
1200 Westwood Dr., Suite 302  
Warren, PA 15085  
(724) 283-0990  
www.hcqu.org

A copy of the Home Safety Checklist can be obtained by calling (724) 283-0990 or logging on our website at [www.hcqu.org](http://www.hcqu.org).

## Alzheimer's: What Would You Do?

By: Christina Irwin, RN; Health Services Consultant

If you visited your doctor to have concerning health issues addressed and you found out that you had Alzheimer's disease, what would you do? Well, Glen Campbell, Country Music Star from the 60's and 70's, found out he had Alzheimer's disease in



Glen Campbell

January 2011. Glen decided to make another record, which was released in August 2011, and go on a farewell tour with his family. Patricia "Pat" Summitt, an American women's college basketball coach, found out she had early-onset dementia-Alzheimer's type, in May 2011. She is currently the head coach of the Tennessee Lady Vols basketball team and all-time winningest coach in NCAA basketball history of either a men's or women's team in any division. Pat has also decided to continue on with her passion, by coaching through the 2011-2012 season.

According to the Alzheimer's Association at alz.org, Alzheimer's is a progressive disease, where dementia symptoms gradually worsen over a number of years. In its early stages, memory loss is mild, but with late-stage Alzheimer's, individuals lose the ability to carry on a conversation and respond to their environment. Alzheimer's is the sixth leading cause of death in the United States. Even though each individual is unique, these are the symptoms to look for and that should be discussed with your doctor:

- Memory loss that disrupts your daily life
- Challenges in planning and solving problems
- Difficulty completing familiar tasks at home, at work, or at leisure
- Confusion with time or place
- Trouble understanding visual images and spatial relationships
- New problems with words in speaking or writing
- Misplacing things and losing the ability to retrace steps
- Decreased or poor judgment
- Withdrawal from work or social activities
- Changes in mood or personality

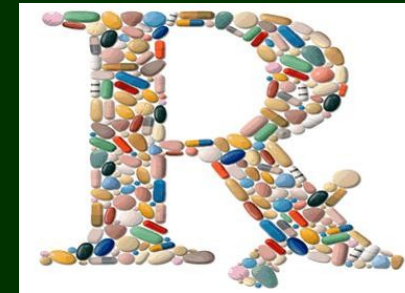
Alzheimer's has no cure and can be a long, slow process. By talking with your doctor, treatments can be started early to temporarily slow symptoms and improve quality of life. Be sure to discuss all symptoms with your doctor as Alzheimer's is not the only cause of memory loss.

By seeing this disease in the media, through celebrities, we are able to learn about the signs, symptoms, and treatments. But more importantly, we see how real people can be an inspiration to us all. Glen and Pat are continuing to live their lives to the fullest. Let's continue to support others to live their lives to the fullest as well.



Patricia "Pat" Summitt

## Preventing Adverse Drug Reactions



New criteria to flag potentially inappropriate medicines for older adults could prevent adverse drug events better than the existing criteria, a new study has found. Researchers analyzed the records of 600 people 65 and older admitted to a hospital over four months, in some cases due to medication side effects. When they ran the patients' drug regimens through the two sets of criteria, the new system which includes medication that is widely used or might interact with or duplicate other drugs—flagged potentially dangerous prescriptions 2.5 times more often than the current system, known as the Beers criteria.

*(The above was published from the Consumer Reports On Health Magazine.)*

## Welcome to the Future: Breakthrough: Electronic Circuits that are Integrated with your Skin.

By: Brian Speakman, Behavioral Health Consultant

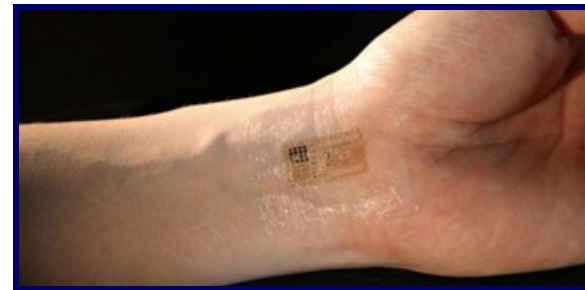
On August 11, 2011, a team of engineers announced a discovery that could change the world of electronics forever. Called an “epidermal electronic system” (EES), it is a break from the hard, rigid electronic “wafer” that has been the traditional electronic format. This new technology allows for an electronic circuit to be mounted on your skin, with the ability to stretch, flex, and twist, all while taking in valuable input from the movements of your body.



To accomplish this, their team brought together scientists from several labs to develop “filamentary serpentine” (threadlike and squiggly) circuitry. When this circuitry is mounted on a thin, rubber substrate with elastic properties similar to skin, the result is a flexible patch that can bend and twist, or expand and contract, all without affecting electronic performance.

The EES incorporates electrophysiological, temperature, and strain sensors, transistors, light-emitting diodes, photodetectors, radio frequency inductors, capacitors, oscillators, and rectifying diodes. Solar cells and wireless coils provided power supply.


When asked what the most promising applications may be, co-developer and engineer John Rogers, states that medicine is the most compelling.



“Our paper demonstrates our ability to monitor ECG (as a monitor of heart disease and metabolism), EMG (as a measure of, among other things, gait during walking), and EEG (as a measure of cognitive state and awareness). If employed at a large scale, they could eliminate the need of bulky hospital equipment, which usually involves the use of conductive fluids and glues.”

We have also shown that these same devices can stimulate muscle tissue to induce contractions. When combined with sensing/monitoring, such modes of use could be valuable in physical rehabilitation. We also have an interest in sleep monitoring (for sleep apnea) and neo-natal care (monitoring premature babies, in particular).


“The fidelity of the measurement is equal to the best existing technology that is out there today, but in a very unique skin-like form.”



 Presenting a ZUMBA class, modified for individuals with Intellectual and/or Developmental Disabilities, also known as ID/DD.


It's a dance-fitness class that feels friendly, and most of all, fun!

The ZUMBA FITNESS®—Party is known for: the zesty Latin music, like salsa, meringue, cumbia and reggaeton; the exhilarating, easy-to-follow moves; and the invigorating, party-like atmosphere. Also, it creates an opportunity to increase self-confidence, boost metabolism and enhance range of motion. We all look for and need camaraderie, excitement and fitness as a regular part of our weekly schedule.

You may have danced with me at events in Butler, PA. Want to party or host an event? Call for class times, locations, pricing, and references at (724) 991-8260.

 ~Christen Knickerbocker, ZUMBA FITNESS® Instructor



**HCQU Happenings:** To register, please visit our website at [www.hcqu.org](http://www.hcqu.org) or call (724) 283-0990.



**SAVE THE DATE: David Hingsburger Conference**

**Presented by:** David Hingsburger  
Consultant

**Date:** May 17-18, 2012

**Location:** Succop Theater- Butler, PA

**Employee Turnover: What's It Really Cost?**

**By:** Natalie Symons, RN; Clinical Services Coordinator

Often in the ID/DD field we talk about “turnover”. One staff person leaves and goes on to other endeavors and another staff person fills their shoes. At Community Health Connections, in the work we do, we often see the physical and emotional toll of staff turnover. It left us wondering, in the state of these economic times, what is the financial toll of staff turnover? What does it really cost when a team member gets burnt out and leaves? How can we put in to economic terms the loss of knowledge and trust with the person they are supporting? The following is an in-depth look at what it would cost to replace a Direct Service Professional that has 2 years experience and receives \$10 per hour and to train the person who fills their vacancy. The calculations are based on a Human Resources development tool. The actual salary figures are subjective and are based on calculations from inquires of several different agencies.

**Cost of Employee Turnover**

The following is an estimation of the cost to replace a DSP that has 2 years of experience and is paid \$10 per hour.

	<b>RATE</b>	<b>TIME</b>	<b>COST</b>
Cost of the temp staff who fills in while the position is vacant.	\$16.35/hour	1 month	\$2,616
Lost of Productivity at 50% for each month that the position is vacant, even if there are people performing the work.	\$10/hour	1 month	\$800
Conducting exit interview to include the time of the person conducting the interview, the time of the person leaving, the administrative costs of stopping payroll, benefit deductions, benefit enrollments, COBRA notification and administration, and the cost of the various forms needed to process a resigning employee.	\$100/hour	3 hours	\$300
Cost of the manager who has to understand what work remains, and how to cover that work until a replacement is found.	\$18/hour	4 hours	\$72
Cost of training your company has invested in this employee who is leaving including internal training, external programs and external academic education.	\$10/hour	24 hours	\$240
The impact on departmental productivity because the person is leaving. Who will pick up the work, whose work will suffer, what deadlines will not be met or delivered late. The cost of department staff discussing their reactions to the vacancy.	\$10/hour For 10 staff	4 hours	\$400
The cost of severance and benefits continuation provided to employees who are leaving that are eligible for coverage under these costs.	\$10/hour	1 week	\$400
The cost of loss of knowledge and skills that the person who is leaving is taking with them. 50% of annual salary for one year of service add 10% for each increasing year of service.		1 year of service 2 years of service 3 years of service	\$9,600 \$10, 560 \$11, 520

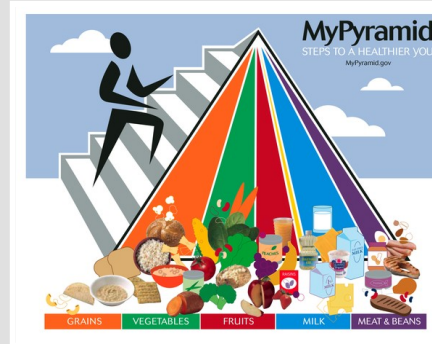
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Subtract the cost of the person who is leaving for the amount of time the position is vacant	\$10/hour	1 month	\$1,600
Cost of advertisements to recruit: newspaper and internet posting.			\$500
Cost of internal recruiter's time to understand the position requirements, develop and implement a sourcing strategy, review candidates backgrounds, prepare for interviews, conduct interview, prepare candidate assessments, conduct reference checks, make the employment offer and notify unsuccessful candidates.	\$25/hour	70 hours	\$1,750
Cost of the hiring department (immediate supervisor, next level manager, peers, and other people on the selection list) time to review and explain position requirements, review candidates background, conduct interview, discuss their assessments and select a finalist.	\$30/hour	20 hours	\$600
The administrative cost of handling, processing and responding to resumes and \$1.50 per resume.	\$1.50/ resume	20 resumes	\$30
The cost of drug screens, educational and criminal background checks and other reference checks.			\$1,000
Cost of orientation in terms of the new person's salary and the cost of orientation materials.	\$15/hour	80 hours	\$1,200
Cost of departmental training as the actual development and delivery cost plus the cost of the salary of the new employee.	\$15/hour	40 hours	\$600
Cost of the person(s) who conduct the training.	\$20/hour	80 hours	\$1,600
Cost of various training materials needed including company or product manuals, computer or other technology equipment used in the delivery of training. Cost of the education of the trainer.			\$1,000
Cost of supervisory time spent in assigning, explaining and reviewing work assignments and output. This represents lost productivity of the supervisor. Consider the amount of time spent at 7 hours per week for at least 8 weeks.	\$18/hour	56 hours	\$1,008
Upon completion of whatever training is provided, the employee is contributing at a 25% productivity level for the first 4 weeks.	\$10/hour	30 hours X 4 weeks	\$1,200
During the next 5 to 12 weeks the employee is contributing at a 50% productivity level	\$10/hour	20 hours X 8 weeks	\$1,600
Cost of coworkers and supervisory staff lost productivity due to their time spent on bringing the new employee "up to speed".	\$10/hour	100 hours	\$1,000
Cost of lost department productivity caused by a departing member of management who is no longer available to guide and direct the remaining staff.	\$25/hour	15 hours	\$375
Cost of bringing the new person on board including the cost to put the person on the payroll, establish computer and security passwords and identification cards, cost of establishing email accounts, cell phones, automobile accounts.	\$50/hour	10 hours	\$500
Cost of a manger's time spent developing trust and building confidence in the new employee's work	\$18/hour	15 hours	\$270
<b>Total cost of employee turnover from the resignation of one employee to hiring and training new employee.</b>			<b>\$28,021</b>

## Stepping Up to the Plate, Not the Pyramid

By: Christina Irwin, RN; Health Services Consultant

Many people are still confused about the food pyramid that came out in 2005 (see image). The image is cluttered and it takes time to read through the supplemental information. For example, why is that person walking up the side of the pyramid? It is a reminder to be active every day, and that taking steps everyday can lead to change over time. The United States Department of Agriculture (USDA) understood that many people had difficulty with the food pyramid,



so they decided to

try something new. The idea is a simpler way to portray the same information; it's called "Choose My Plate" (see image). Using a plate is a way to relate a familiar mealtime image to healthier food choices. There are no specific portion sizes or amounts listed, but the image does come with encouraging messages (see box). If you are looking for more information or resources about "Choose My Plate" visit the website at: [www.choosemyplate.gov](http://www.choosemyplate.gov). There is

information available to learn about food groups, making a personalized meal plan, analyzing your diet, and so much more. Now when you step up to your plate, think about the "Choose My Plate" image and try to make half your plate fruits and vegetables. Remember, it's still the same idea as before—take small steps in the right direction for a healthier you.

### Tips to Help You

#### Balancing Calories

- Enjoy your food, but eat less
- Avoid oversized portions

#### Food to Increase

- Make half your plate fruit and vegetables
- Make at least half your grains whole grains

#### Food to Reduce

- Compare sodium in foods like soup, bread and frozen meals—and choose the food with lower numbers
- Drink water instead of sugary drinks



### What's the best way to get rid of expired medicines?

Put them in a bowl and cover them with water until they get goey and soft, then mix them with cat litter or coffee grounds. Wrap the mixture in newspaper and throw it in the trash. That way there's no chance someone will find the pills and try to use them. Don't flush them down the toilet or put them through the garbage disposal. We don't want pharmaceuticals going into our sewer system. **(Reprinted from Consumer Reports for Health June 2011)**

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A Division of



## COMMUNITY HEALTH

### C-O-N-N-E-C-T-I-O-N-S

a Health Care Quality Unit

The Bantam Commons  
120 Hollywood Drive, Suite 201  
Butler, PA 16001

P: (724) 283-0990  
F: (724) 283-1012  
www.hcqu.org



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## A Note From The Director

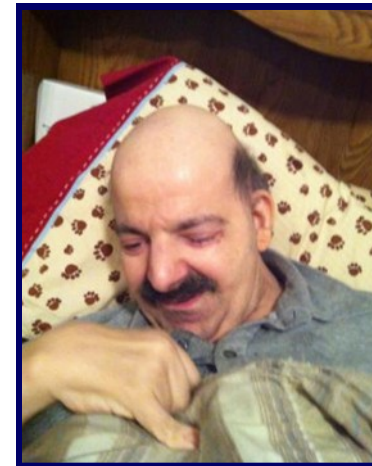


Dear Valued Readers,

You've heard me tell stories before about my brother Nicky. The latest I'd like to share is one that he allows me. This past July, Nicky was taken to the ER for an event that revealed a UTI. What none of us realized was that he picked up something more than a prescription for antibiotics that day. A bacterium invaded his body and quickly multiplied in his small frame with deadly vigor. When rushed to the ER a few days later, a new diagnosis was revealed: c-diff. Because of staff's alert and quick action, we were told that he would recover with strong antibiotic treatment. Shortly after that "good" news, however, we learned that c-diff toxins infected his blood and the antibiotics were having no discernable effect. Then, we received a call that left us paralyzed with fear. We were informed that everything possible was being done to save Nicky, but he was in septic shock and would soon "expire" except for one other possible option. That option was emergency surgery to remove his bowel to get rid of the c-diff. The surgeon gave him a 50/50 chance of survival. Today, after an arduous journey, my brother is adjusting to an ileostomy bag. His stellar staff and friends continue to support him towards recovery. C-diff is deadly. C-diff is usually contracted in hospitals. C-diff prevention requires vigilance in cleanliness. C-diff is opportunistic in those who are on antibiotics or who have a weakened immune system. I know I am forever changed by its impact in my personal experience. It is our hope that our lead article on c-diff is helpful to you in your high calling to support those with disabilities to live a healthy and full life.

Warmest regards,

Mary



Nicky soon after his return home from c-diff ordeal.

## Insert

# Spring 2012 Special Speakers

To register, please visit our website at [www.hcqu.org](http://www.hcqu.org) or call (724) 283-0990.



### Ask the Doctor

**Presented by:** Gregory Cherpes,  
MD

**Date:** March 29, 2012

**Time:** 1PM—3PM

**Location:** The CDC- Butler, PA



### The Power of Empathy: The Person Directed Framework

**Presented by:** Guy Legare, M.Ps

**Date:** April 18, 2012

**Time:** 8:30AM—3:30PM

**Location:** CHC—Butler, PA



### ID and Sleep

### Pathobehavioral Syndromes (PBS) That Can Lead to Aggression

**Presented by:** Jim Siberski

**Date:** April 2, 2012

**Time:** 9AM—12PM



### SAVE THE DATE: David Hingsburger Conference

**Presented by:** David Hingsburger

**Date:** May 17-18, 2012

**Location:** Succop Theater  
Butler, PA