

# Zinc & Health Quarterly Newsletter

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Community Health Volunteers in Nepal educate mothers about the importance of zinc for brain development

## Zinc Saves Kids Reaches 600,000 Children in Nepal and Peru

Zinc Saves Kids, a partnership between UNICEF and the International Zinc Association (IZA), funded in part by Teck, aims to improve the health of children in Nepal and Peru. Prior to the UNICEF-IZA partnership, malnutrition and diarrhea were major public health issues in both countries. In Nepal, 50% of children under five years old suffered from malnutrition and 25% of children under the age of one suffered from chronic diarrhea. In Peru, the numbers were similar. To address this, UNICEF successfully piloted a zinc supplementation program to ensure that children had access to essential micronutrients in the first five years of life that are critical to healthy development.

UNICEF recently released its Year 3 Summary of Results for the five-year partnership with the IZA.



Children play outside a UNICEF health hut in Nepal supported by Zinc Saves Kids and Teck

### Nepal Results

- 200,000 children in 15 regions have received micronutrient powder containing zinc
- 85,401 mothers and caregivers have been educated through 3,762 mothers groups
- 2,429 health workers and 6,813 community health volunteers have been trained
- 528,800 brochures, 161,100 posters and 157,300 stickers have been distributed to educate the general public in 15 districts
- Levels of stunted growth in children under five years old have decreased by 19% since 2011

### Peru Results

- 400,000 children in 13 regions have received micronutrient powder containing zinc
- 188 health centres now provide zinc, up from 24 centres in 2011
- 1,364 health practitioners were trained on administering and recording zinc treatments
- 48% reduction in anemia across three regions, and 63% reduction in acute childhood diarrhea
- Levels of stunted growth in children under five years old have decreased by 20% since 2011



## Question about Zinc? Ask An Expert!

The Zinc Task Force recently launched its Ask An Expert tool, which provides the public with access to experts in the field of zinc programs, resource mobilization and implementation. The Zinc Task Force is a collaborative group of international organizations and academic institutions working toward the accelerated delivery of zinc and oral rehydration salts for the treatment of diarrhea in low-income countries.

To ask a question, visit  
[www.zinctaskforce.org](http://www.zinctaskforce.org)



## Saving Every Woman, Every Child is Within Arm's Reach

Last month, the Government of Canada celebrated Canada's collective impact on child health interventions, and focused efforts to make a final push to reach the most vulnerable mothers, newborns and children around the world.

*Saving Every Woman Every Child: Within Arm's Reach*, a global summit hosted by Prime Minister Harper, brought together Canadian and international leaders and experts, businesses, scientists, and global foundations to ensure that maternal, newborn and child health remains a top priority of the global development agenda. Attendees included UN Secretary-General Ban Ki-moon, Melinda Gates and His Highness the Aga Khan.

Teck was invited to attend the Summit as a private sector leader in supporting child health initiatives and to highlight our Zinc & Health program that is making a difference around the world.

The summit focused on the following three themes:

- Delivering Results for Mothers and Children:** Determining how, collectively, we have successfully delivered results and exploring how innovative technology and operating models are saving lives.
- Doing More Together Globally:** Pushing new technologies and global partnerships to improve women's and children's health.
- Real Action for Women's and Children's Health:** Identifying concrete steps that Canada and its partners will take to ensure that mortality rates drop, nutrition improves and more children live to see their fifth birthday.

To learn more about the Summit, please visit:  
[www.canada.ca/MNCH](http://www.canada.ca/MNCH)

## Zinc & Health Featured at Teck's Annual Hockey Tournament

Zinc & Health made a splash at Teck's 19th annual hockey tournament and family skating event held in Calgary on March 1. Calgary Zinc Captain Estela Frias, her husband, Dennis, and colleagues Denise Maigret and Ellen Gleave were on site to raise awareness about Teck's Zinc & Health program. Attendees included Teck employees, family members and friends from Calgary, the Elk Valley, Highland Valley Copper, Duck Pond and Red Dog. The

Zinc & Health team also sold raffle tickets for an X-box One which raised \$1,460, including a match by Teck, for the cause.



The Urban Miners hockey team



Zinc Captains Estela Frias and Denise Maigret with friends at the hockey tournament



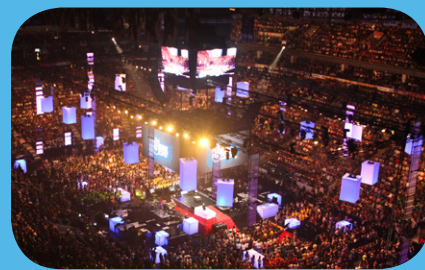


## We Day Season Concludes at National We Day in Ottawa

The 2013–2014 We Day season came to a close with an amazing celebration at National We Day in Ottawa on April 9. eTalk's Jessi Cruickshank and Degrassi's Luke Bilyk hosted the event and introduced the many influential figures in attendance, including Martin Luther King III, The Honourable David C. Onley and Her Majesty Queen Noor.

Teck's Zinc & Health program was celebrated at the event and young

people across the country helped raise awareness by participating in our Send One, Save One e-postcard campaign. The campaign aims to spread the word about zinc deficiency and offers participants the opportunity to save a child's life by sending an e-postcard to anyone, anywhere in the world. To date, 3,240 e-postcards have been sent to recipients in 102 countries around the world. To send an e-postcard, visit [www.zincsavestives.com](http://www.zincsavestives.com)



## Mark your Calendars for We Day 2014–2015!

**Toronto**  
October 2, 2014

**Vancouver**  
October 22, 2014

**Manitoba**  
October 29, 2014

**Alberta**  
November 3, 2014

**Saskatchewan**  
November 7, 2014

**Minnesota**  
November 12, 2014

**Waterloo Region**  
November 20, 2014

**Atlantic Canada**  
November 28, 2014

## Zinc & Health Word Search

Did you know that zinc is essential for brain development and function? Help sharpen your brain further with this Zinc & Health word search.

Zinc  
Health  
Saves Lives  
Micronutrient  
Fortify

Nutrition  
Awareness  
We Day  
Deficiency

A	N	T	Q	X	M	J	L	O	U	T	V	P	I	Y	G	B	C	E
E	U	G	V	A	Z	Q	H	R	Z	I	N	C	L	B	G	S	D	J
V	T	X	D	Q	W	L	J	B	C	V	F	R	T	U	S	C	E	Z
Q	R	J	I	T	R	A	D	F	E	R	H	J	A	B	A	U	F	E
C	I	F	O	M	W	O	W	U	D	T	Y	R	W	H	V	Y	I	H
C	T	E	J	I	K	E	L	A	T	L	C	M	H	M	E	M	C	P
G	I	S	Y	G	D	N	O	C	R	W	I	H	S	E	S	O	I	V
A	O	W	I	A	N	E	O	S	Y	E	O	S	M	N	L	Y	E	D
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E	N	S	A	Y	O	U	M	E	A	R	Y	E	E	U	V	N	C	A
O	H	E	A	L	T	H	S	A	S	L	U	H	S	R	E	M	Y	U
A	F	I	S	R	C	F	O	R	T	I	F	Y	C	S	S	M	X	O
Y	R	E	Y	I	A	Z	C	G	E	M	J	R	K	L	T	A	Y	P



## What is Food Fortification?

Food fortification is the practice of increasing the content of an essential micronutrient in food to improve its nutritional quality and provide a public health benefit. Fortification with micronutrients, such as vitamin A, iron and zinc, averts a significant number of infant and child deaths, and is a high-priority investment for health care interventions. Common food vehicles for food fortification include flour, milk, sugar and rice.



## Why is Zinc Important?

Zinc is an essential micronutrient for growth, physical and brain development, and a strong immune system to fight against disease. Nearly two billion people worldwide do not get enough zinc in their diet, and 450,000 children are at risk of dying every year due to complications associated with zinc deficiency. Fortifying staple foods with zinc is a highly cost-effective measure for reducing widespread micronutrient deficits and improving human health.



## Teck BASF Partnership to Reach 70 Million People in 2014

Through their work as partners, Teck and BASF will provide some 70 million people at risk of zinc deficiency with access to affordable zinc-fortified staple foods throughout 2014. This initial availability marks an important milestone for the partnership, which, at the end of its three-year term, is expected to provide more than 100 million people with access to zinc fortified products.

BASF is the world's leading chemical company, committed to developing products that conserve resources and improve quality of life. High-quality zinc supplied by Teck's Trail Operations is combined with BASF's

food fortification expertise to produce zinc products, including flour and rice premixes. BASF's global network provides a means to deliver the zinc products to those who need it most.

Teck and BASF have also developed a test kit to analyze the levels of zinc in premixes. The mobile test kit, iCheck ZINC, provides quick, reliable and economic measures of zinc levels in real time. The kit, developed by BioAnalyt, is used by non-governmental organizations, the food and food processing industry, universities and monitoring agencies to ensure a product is fortified to the level it claims.

## Learn More from BASF

**Andreas Bluethner**  
Director, Food Fortification & Partnerships, BASF

In this B2B (business-to-business) partnership, Teck and BASF have efficiently combined their respective expertise to work together against zinc deficiency. Joint activities with global NGOs, namely UNICEF, GAIN and the Bill & Melinda Gates Foundation, fueled advocacy for zinc fortification in several countries in



Africa, workshops on food fortification in several parts of Latin America and customer awareness of fortified foods. Involvement of local food producers and the use of local market structures and channels have enabled lasting contributions to alleviating malnutrition.





## Red Dog “Zincinators” Conquer the Alaska Heart Run

Teams gathered from all over Alaska on April 26 to participate in the 36th annual Alaska Heart Run in support of the American Heart Association (AHA). Teck’s team from our Red Dog Operations, one of the largest zinc mines in the world, has participated in this run for many years, and ran this year under the leadership of Jim Swendseid, Principal Mine Engineer, Projects. The 14 enthusiastic members of the Red Dog team, also known as the “Zincinators”, ranked fifth in the Top Company Teams

category and raised \$1,855, which helped reach the total of \$268,070 raised by all participants to benefit the AHA’s research and community programs to prevent cardiovascular disease. The Red Dog team wore bright red t-shirts to raise awareness for another worthy cause, Teck’s Zinc & Health initiative. Brendan Vermeulen, Mechanical Engineer in Training, Mill, ran the event in under 21 minutes—the fastest time of anyone on the Red Dog team. Congratulations to Brendan and all the other participants!



## Getting to know... Denise Maigret, Zinc & Health Captain, Calgary



### What is your role at Teck?

I’m the Administrative Assistant for the Environmental team in the Calgary office.

### Why did you want to be a Zinc Captain?

I have volunteered for Zinc & Health over the past few years, and was very honoured when asked if I would join the Calgary team as a Zinc Captain.

### What is your favourite zinc-rich food?

My favourite zinc-rich food is chocolate, followed closely by lamb—both of which I had for Mother’s Day dinner. I’m sure it would be oysters, if I did not have an “anything from the sea” allergy.

### What are you most looking forward to as your role of Zinc Captain?

I’m really looking forward to We Day! I volunteered at the Teck booth last year and it was a wonderful experience. I was especially taken with the camaraderie amongst the kids and their incredible excitement. My goal this year is to learn the We Day dance. If I can do that, anything is possible!

# Zinc-Rich Recipes



## Cinnamon Roasted Butternut Squash

This tasty butternut squash recipe can be added to a salad, served over rice, or eaten as a side dish or entrée. It is an excellent source of zinc—one cup of squash totals up to 44% of the daily recommended intake. Cinnamon is known to regulate blood sugar, which helps stabilize energy levels and mood.

Yield: Four 1-cup servings

### Ingredients

1 large butternut squash, peeled, seeded and cut into 1-inch cubes (about 3 pounds or 8 cups, cubed)

2 tablespoons olive oil

2 tablespoons brown sugar

½ teaspoon ground cinnamon

1 teaspoon kosher salt

Dash cayenne, optional

### Directions

1. Heat oven to 425° F and line two large baking sheets with aluminum foil.
2. Toss squash cubes with olive oil, brown sugar, cinnamon, salt and cayenne until well coated. Tumble coated squash onto baking sheets and spread into one layer. Try not to crowd them too much or they will not brown.
3. Roast squash, turning once and rotating pans once, until edges are lightly browned and centers are tender, approximately 40 to 45 minutes.
4. Let squash cool slightly before serving.

## Dark Chocolate Raspberry Cake

Not only is this recipe delicious, but the combination of dark chocolate and raspberries provides a boost of zinc to your diet. One cup of dark chocolate provides 60% of the daily recommended intake of zinc, and one cup of raspberries provides 15% of the daily recommended intake.

### Ingredients

#### Chocolate Cake

12 eggs, separated

1 cup sugar

⅓ cup cocoa

#### Raspberry Filling

1 cup raspberry jam

4 cups fresh raspberries

#### Chocolate Mousse

2 cups 35% cream

1 ½ cups dark chocolate, chopped

¼ cup soft butter

5 egg whites

¼ cup sugar

### Instructions

#### Chocolate Cake

1. Preheat the oven to 350°F. Grease two 9-inch round cake pans (about 2 inches deep) and line the bottoms with a round of parchment paper.

2. Beat the egg yolks with sugar until thick and pale, for about 3 minutes using a hand or stand mixer. Sift and fold in the cocoa using a spatula.

3. Beat the egg whites until firm peaks form. Slowly add the egg whites to the chocolate mixture.

4. Divide the batter in the pans lined with parchment paper and bake in the middle of the oven for 20 minutes, or until it springs back with the touch of your fingers. Let cool slightly and unmold. Cool completely.

#### Raspberry Filling

1. Melt the raspberry jam in a small saucepan. Transfer jam to a bowl and add the fresh raspberries. Stir delicately to coat the raspberries with the jam. Set aside.

#### Chocolate Mousse

1. In a saucepan, bring the cream to a boil and remove from heat. Pour on chocolate and let stand for 2 minutes. Whisk ganache until smooth. Add butter and let cool at room temperature for about half an hour.

2. Beat the egg whites to soft peak. Add the sugar and continue beating until firm peaks form. Slowly add the meringue to the chocolate ganache. Let cool in the refrigerator for 1 hour.

### Assemble

1. Remove parchment paper from cake and invert one layer onto a plate. Spread half of the chocolate mousse and garnish with the raspberry mixture. Place the second layer of cake on top. Spread the remaining mousse and garnish with fresh raspberries. Top with chocolate shavings and sprinkle with powdered sugar.

