



Gregg Mandsager  
City Administrator  
City Hall, 215 Sycamore St.  
Muscatine, IA 52761-3840  
(563) 264-1550 Voice/TT  
Fax (563) 264-0750

## **City Administrator Report to Mayor & City Council**

*April 19, 2013, Edition No. 84*

### **REPORT:**

1. Levee: Please see the attached letter and invite to a stakeholder's meeting on April 24th at the Joint Armed Forces Center (adjacent to Airport) for a follow up meeting to the August 2012 Stakeholder meeting. The Army Corp will be reviewing its findings to its recent study of 3 levee failure scenarios. This information will be used to wrap up the City's evacuation plan and added to the emergency plan.
2. FD Retirement: Please see the attached flier for Assistant Chief Gary Lee's retirement party. Gary is retiring May 3rd after over 32 years with the Muscatine Fire Department!
3. ATE: We received \$25,750 earlier this week from GATSO. Net of GATSO's fees, City revenue is \$16,921. The updated summary schedule is attached.
4. Earth Day: Please see the following activities surrounding Earth Day:
  - Earth Day Celebration  
Join the City of Muscatine, Muscatine County Conservation Board, and Muscatine Power and Water with all of our friends in this year's Earth Day Celebration. Special features include:  
Document Destruction for important paper recycling (residents and businesses are welcomed)  
Rock climbing wall and bouncing green bus sponsored by GPC  
Monsanto's Farm Safety Trailer  
Fishing, archery, games, and much more!  
Stop by and have a hot dog from Guy and Grill, sponsored by Muscatine Power and Water.  
All this fun will happen on Friday, April 19, 2013, at the Nature Center and Discovery Park from 4:00-7:00 pm.
  - Downtown Clean Up  
Join Muscatine Downtown and Keep Muscatine Beautiful in a [downtown clean up](#) on Saturday, April 20, 2013 from 9:00 am- Noon. Volunteers should meet at Carriage House Carpet One, 121 E. 2nd. St. at 9:00 AM.
  - Spring Clean Up Week for the City of Muscatine and Fruitland  
The week of April 22-26, 2013 is [Spring Clean Up Week](#) for the City of Muscatine and Fruitland, including Ripley's this year. All items should be placed out the night before regular pick up day.

*"I remember Muscatine for its sunsets. I have never seen any on either side of the ocean that equaled them" — Mark Twain*

- Community Garden Spots at Mulford Church

Are you interested in having a garden, but do not have a location available? Mulford Church has a place for you! The attachment to this e-mail is information for a garden spot in their community garden. (See attached)

# Retirement Party !

Assistant Chief Garry lee is retiring after 32 years, 8 months, and 19 days (or 286,800 hours) of service to the citizens of Muscatine

Please join us in wishing him the best in his conversion from public servant to retiree....



May 3<sup>rd</sup>, 2013

10:00 am to 12:00 noon

Muscatine Fire Department (day room – third floor)

312 East Fifth Street

Light refreshments provided, witty stories requested

**City of Muscatine**  
**Automated Traffic Enforcement System**  
**Summary of Tickets Collected by GATSO**

Date Range		Collections		GATSO Fee (\$27/pd ticket)		Net City Revenue	Fiscal Year	
From	To	Amount	Number				Cumulative Amount (City)	Cumulative Total (City)
<b><u>FY 2010/2011</u></b>								
4/26/2011	5/10/2011	\$ 16,400.00	218	\$ 5,886.00	\$ 10,514.00	\$ 10,514.00		
5/11/2011	5/26/2011	59,225.00	779	21,033.00	38,192.00	48,706.00		
5/27/2011	6/10/2011	77,080.00	1,011	27,297.00	49,783.00	98,489.00		
6/11/2011	6/25/2011	73,115.00	945	25,515.00	47,600.00	146,089.00		
6/26/2011	6/30/2011	26,570.00	338	9,126.00	17,444.00	163,533.00		
(Fiscal Yr-End Cutoff)								
Subtotal - FY 2010/2011		\$ 252,390.00	3,291	\$ 88,857.00	\$ 163,533.00			\$ 163,533.00
<b><u>FY 2011/2012</u></b>								
7/1/2011	7/10/2011	\$ 31,790.00	405	\$ 10,935.00	\$ 20,855.00	\$ 20,855.00		184,388.00
7/11/2011	7/26/2011	99,105.00	1,264	34,128.00	64,977.00	85,832.00		249,365.00
7/27/2011	8/10/2011	82,675.00	1,065	28,755.00	53,920.00	139,752.00		303,285.00
8/11/2011	8/26/2011	68,265.00	870	23,490.00	44,775.00	184,527.00		348,060.00
8/27/2011	9/10/2011	51,010.00	642	17,334.00	33,676.00	218,203.00		381,736.00
9/11/2011	9/26/2011	63,040.00	798	21,546.00	41,494.00	259,697.00		423,230.00
9/27/2011	10/10/2011	39,675.00	496	13,392.00	26,283.00	285,980.00		449,513.00
10/11/2011	10/27/2011	52,915.00	672	18,144.00	34,771.00	320,751.00		484,284.00
10/28/2011	11/10/2011	34,910.00	446	12,042.00	22,868.00	343,619.00		507,152.00
11/11/2011	11/25/2011	36,410.00	459	12,393.00	24,017.00	367,636.00		531,169.00
11/26/2011	12/10/2011	31,235.00	400	10,800.00	20,435.00	388,071.00		551,604.00
12/11/2011	12/27/2011	28,250.00	352	9,504.00	18,746.00	406,817.00		570,350.00
12/28/2011	1/10/2012	37,060.00	478	12,906.00	24,154.00	430,971.00		594,504.00
1/11/2012	1/26/2012	41,130.00	528	14,256.00	26,874.00	457,845.00		621,378.00
1/27/2012	2/10/2012	37,225.00	481	12,987.00	24,238.00	482,083.00		645,616.00
2/11/2012	2/24/2012	24,230.00	307	8,289.00	15,941.00	498,024.00		661,557.00
2/25/2012	3/10/2012	27,120.00	347	9,369.00	17,751.00	515,775.00		679,308.00
3/11/2012	3/26/2012	28,690.00	366	9,882.00	18,808.00	534,583.00		698,116.00
3/27/2012	4/10/2012	26,460.00	342	9,234.00	17,226.00	551,809.00		715,342.00
4/11/2012	4/25/2012	44,465.00	573	15,471.00	28,994.00	580,803.00		744,336.00
4/26/2012	5/10/2012	34,050.00	434	11,718.00	22,332.00	603,135.00		766,668.00
5/11/2012	5/26/2012	35,300.00	446	12,042.00	23,258.00	626,393.00		789,926.00
5/27/2012	6/10/2012	31,130.00	403	10,881.00	20,249.00	646,642.00		810,175.00
6/11/2012	6/25/2012	52,415.00	668	18,036.00	34,379.00	681,021.00		844,554.00
6/26/2012	6/30/2012	20,765.00	267	7,209.00	13,556.00	694,577.00		858,110.00
Total - FY 2011/2012		\$ 1,059,320.00	13,509	\$ 364,743.00	\$ 694,577.00	Fiscal Year total before MCA collections		

<b><u>FY 2012/2013</u></b>								
7/1/2012	7/10/2012	\$ 40,360.00	517	\$ 13,959.00	\$ 26,401.00	\$ 26,401.00		1,048,044.00
7/11/2012	7/26/2012	56,520.00	723	19,521.00	36,999.00	63,400.00		1,085,043.00
7/27/2012	8/10/2012	52,805.00	668	18,036.00	34,769.00	98,169.00		1,119,812.00
8/11/2012	8/26/2012	44,170.00	559	15,093.00	29,077.00	127,246.00		1,148,889.00
8/27/2012	9/10/2012	49,420.00	624	16,848.00	32,572.00	159,818.00		1,181,461.00

9/11/2012	9/26/2012	56,340.00	709	19,143.00	37,197.00	197,015.00	1,218,658.00
9/27/2012	10/10/2012	45,655.00	581	15,687.00	29,968.00	226,983.00	1,248,626.00
10/11/2012	10/27/2012	52,895.00	676	18,252.00	34,643.00	261,626.00	1,283,269.00
10/28/2012	11/10/2012	39,395.00	501	13,527.00	25,868.00	287,494.00	1,309,137.00
11/11/2012	11/25/2012	25,540.00	322	8,694.00	16,846.00	304,340.00	1,325,983.00
11/26/2012	12/10/2012	34,155.00	435	11,745.00	22,410.00	326,750.00	1,348,393.00
12/11/2012	12/27/2012	36,205.00	459	12,393.00	23,812.00	350,562.00	1,372,205.00
12/28/2012	1/10/2013	29,690.00	384	10,368.00	19,322.00	369,884.00	1,391,527.00
1/11/2013	1/27/2013	26,575.00	333	8,991.00	17,584.00	387,468.00	1,409,111.00
1/28/2013	2/10/2013	23,815.00	293	7,911.00	15,904.00	403,372.00	1,425,015.00
2/11/2013	2/24/2013	18,965.00	241	6,507.00	12,458.00	415,830.00	1,437,473.00
2/25/2013	3/10/2013	18,895.00	241	6,507.00	12,388.00	428,218.00	1,449,861.00
3/11/2013	3/26/2013	30,465.00	395	10,665.00	19,800.00	448,018.00	1,469,661.00
3/27/2013	4/10/2013	25,750.00	327	8,829.00	16,921.00	464,939.00	1,486,582.00

Total - FY 2012/2013

\$ 707,615.00      8,988      \$ 242,676.00      \$ 464,939.00

Fiscal Year total before  
MCA collections

Total to Date

\$ 1,311,710.00      16,800      \$ 453,600.00      \$ 858,110.00

**City of Muscatine**  
**Automated Traffic Enforcement System**  
**Summary of Tickets Forwarded to MCA Collection Service**

Unpaid Amounts to MCA from GATSO					MCA Collections					MEMO Number Canceled	
Date to MCA	Number		Amount		Payment date from MCA	Number		Payments			
	Current	Cumulative	Current	Cumulative		Current inc. Partials	Cumulative	Current	Cumulative		
7/7/2011	144	144	\$ 15,990.00	\$ 15,990.00	8/12/2011						
8/1/2011	417	561	46,440	62,430.00	(July collections)	26	26	\$ 2,694.06	\$ 2,694.06	3	
9/6/2011	364	925	40,565	102,995.00	9/12/2011	(21 full or pd in full pmnts)					
10/4/2011	477	1,402	53,395	156,390.00	(Aug collections)	74	100	7,438.75	10,132.81	9	
10/31/2011	288	1,690	32,345	188,735.00	(Sept collections)	98	198	9,682.38	19,815.19	1	
11/23/2011	191	1,881	21,750	210,485.00	11/10/2011	(76 full or pd in full pmnts)					
12/30/2011	276	2,157	30,895	241,380.00	(Oct collections)	150	348	13,938.33	33,753.52	12	
1/26/2012	144	2,301	16,085	257,465.00	12/12/2011	(101 full or pd in full pmnts)					
2/27/2012	198	2,499	22,150	279,615.00	(Nov collections)	128	476	10,224.38	43,977.90	1	
3/30/2012	215	2,714	24,065	303,680.00	1/9/2012	(87 full or paid in full pmnts)					
4/26/2012	131	2,845	14,660	318,340.00	(Dec collections)	115	591	8,945.93	52,923.83	1	
5/31/2012	237	3,082	26,425	344,765.00	2/9/2012	(57 full or pd in full pmnts)					
6/28/2012	213	3,295	24,080	368,845.00	(Jan collections)	112	703	9,725.62	62,649.45	0	
7/30/2012	259	3,554	29,040	397,885.00	(75 full or pd in full pmnts)						
8/30/2012	336	3,890	37,905	435,790.00	GATSO Portion of Collections		703	(12,879.00)	49,770.45		
9/27/2012	313	4,203	35,320	471,110.00	July-Jan (477 tickets)						
10/26/2012	218	4,421	24,255	495,365.00	(Feb collections)	115	818	10,182.02	59,952.47	1	
11/30/2012	311	4,732	34,710	530,075.00	(93 full or pd in full pmnts)						
12/31/2012	256	4,988	28,560	558,635.00	(Mar collections)	85	903	7,449.22	67,401.69	0	
1/31/2013	217	5,205	24,820	583,455.00	(63 full or pd in full pmnts)						
3/4/2013	183	5,388	20,205	603,660.00	(Apr collections)	98	1,001	8,054.93	75,456.62	2	
3/28/2013	127	5,515	14,245	617,905.00	(65 full or pd in full pmnts)						
					(May collections)	98	1,099	7,988.47	83,445.09	3	
					(65 full or pd in full pmnts)						
					(Jun collections)	107	1,206	8,403.18	91,848.27	1	
					(68 full or pd in full pmnts)						
					GATSO Portion of Collections		1,206	(9,747.00)	82,101.27		
					Feb-June (361 tickets)						
					Fiscal Year net total						
					Cumulative						
					(July collections)	110	1,316	8,892.61	90,993.88		

				(74 full or pd in full pmnts)
	(Aug collections)	108	1,424	9,295.97
		(79 full or pd in full pmnts)		100,289.85
	(Sept collections)	111	1,535	10,174.39
		(80 full or pd in full pmnts)		110,464.24
	(Oct collections)	125	1,660	10,852.47
		(87 full or pd in full pmnts)		121,316.71
	(Nov collections)	122	1,782	10,151.66
		(81 full or pd in full pmnts)		131,468.37
	(Dec collections)	156	1,938	11,813.15
		(95 full or pd in full pmnts)		143,281.52
	(Jan collections)	169	2,107	14,326.58
		(128 full or pd in full pmnts)		157,608.10
	(Feb collections)	116	2,223	9,544.48
		(83 full or pd in full pmnts)		167,152.58
	(Mar collections)	166	2,389	13,700.64
		(124 full or pd in full pmnts)		180,853.22
				1



1459 Washington St.  
Muscatine, IA 52761-5040  
(563) 263-8933  
Fax (563) 263-2127

Public Works

City Transit  
263-8152

April 15, 2013

Equipment Maintenance  
Roadway Maintenance  
Collection & Drainage  
Building & Grounds  
Engineering

Dear Stakeholder:

The City of Muscatine and the U.S. Army Corps of Engineers held a Stakeholders meeting on August 30, 2012 to discuss the ramifications of a breach in the Mississippi River Levee. At that time three breach locations were chosen for study and modeling:

1. Musser Park Vicinity
2. Monsanto Corporation Vicinity
3. Pump Station Vicinity (south end of levee)

The U.S. Army Corps of Engineers has completed the hydraulic modeling and has produced time series inundation mapping. The Study deliverables include the analysis and documentation of failure scenarios and mapping to serve as input for stakeholder's emergency preparedness planning.

As a Stakeholder we are inviting you to join us on Wednesday, April 24, 2013 at 6:00 p.m. in the Joint Armed Forces Center, 5901 Highway 61 South. Representatives from the U.S.A.C.E. will provide details of the Study for review, questions, comments and feedback.

We look forward to your participation. If you have any questions please contact me at 563-263-8933 and/or rhill@muscatineiowa.gov.

Sincerely,

A handwritten signature in black ink, appearing to read "Randy Hill".

Randy Hill  
Public Works Director

**"I remember Muscatine for its sunsets. I have never seen any on either side of the ocean that equaled them" — Mark Twain**

## Community Gardens at Mulford - Good Neighbor Guidelines

1. Mulford is providing fenced land, tillage, water and parking to individuals and families desiring a small garden space of their own at no charge. Most plots will be either 10x10 or 10x20 with larger plots available depending on space availability. The Garden is open daily from dawn to dusk. You are welcome to tend to your plot at a time that is best for your schedule; however, restrooms will only be available during the weekly group scheduled hours. Times to be announced.
2. **Safety:** Please park on the blacktop area, and always double check for children playing in the parking lot before backing out. We realize that there may be an occasional need to drive into the garden area to offload or reload equipment. Please obtain permission from the Garden Coordinator ahead of time if you need to do this and use spotters to make sure the area is clear of children.
3. Each gardener is responsible for the maintenance and upkeep of their own garden plot. If you need to have a friend help maintain your plot in case of an illness or absence, please email the name(s) to the Garden Coordinator ahead of time to help with safety in knowing who should be in the garden.
4. Please contribute an hour each month to the general upkeep of the garden. You will be on your own to keep track of that.
5. Please keep garden gate closed at all times to help keep the deer and rabbits on the outside.
6. Children are welcome in the garden but must be accompanied by an adult and must be supervised at all times.
7. Please notify the coordinator if something comes up to prevent you from caring for your plot. If any plot remains unattended for more than three weeks it is subject to reassignment unless special arrangements have been made.
8. The application of herbicides (weed killers) to the garden plots is prohibited without permission from the garden coordinator. If an insect product is needed, follow label directions and be mindful of the wind so as not to cause drift onto someone else's plot. If you need help determining what product to use contact the garden coordinator.
  - a. **In the event that any form of pesticide or fungicide is used, only those authorized by the Environmental Protection Agency (EPA) for gardening purposes may be used. All containers containing pesticides must be disposed of according to the package directions. Read and follow the guidelines provided with these products regarding their use and storage. Even all natural products may be hazardous. These products should also be kept in a secure area that is not accessible to children. Sometimes these products require the user to mix them with water or another substance. If product is mixed with water and/or used in another container, please mark container as to product it contains. The products' directions should be carefully followed in these situations and the person mixing them should be wearing appropriate protective equipment and clothing (gloves, masks, goggles, etc.). These kinds of protective equipment and clothing should also be worn when applying fertilizers or pesticides. Produce that has been treated with chemicals must be thoroughly washed before consuming.** <http://www.iowaagriculture.gov/pesticides.asp>

9. Gardeners may harvest vegetables and flowers from their garden only. Do not use water from another plots tank. Do not put any additives in the water tanks, i.e., fertilizer, insecticide, etc...
10. At the end of the growing season, gardeners are responsible for clearing their plot of all planting materials and leaving the plot as they found it in the spring.
11. Plots are assigned on a first come/first serve basis. Gardeners who have previously gardened at the site are given preference. The required 6` walkway between each individual garden must be maintained. Obstructions in walkways will be removed.
12. You will need to provide your own hand tools (rakes, hoes, etc...). Any tools accidentally left in the garden will be placed in the garden shed. Please make sure your tools are labeled with your name so we can return lost tools to the proper owner.
13. Trash – please carry your trash out of the garden area and deposit securely in the trash can beside the tool shed.
14. A Compost Site will be designated by the Coordinator for the disposal of plant material.
15. Weeds may be pulled and disposed of in the compost site. Compost site will be designated so all gardeners will be aware of location.
16. No perennials or overwintering root vegetables, as you may not receive the same plot in successive seasons.
17. All plants must be legal and for personal consumption.
18. Courtesy - It is our hope that conversation and social interaction over the garden season will lead to genuine friendships, and informal cooperation. Be considerate of your neighbor. The garden is to be a tranquil place for work, building friendships, and quiet meditation. Please limit your music preferences to a headset.
19. Pets are not allowed in the garden.
20. If you have an abundance of vegetables, and would like to contribute a portion of your harvest to the Saturday morning produce stand, you are welcome to do so. These should be items picked on Thursday or Friday for freshness. Most of the people that visit the free produce stand take only what they can use that week, and may be unable to work in a garden plot. This produce is offered with no strings attached. Buckets will be made available for donations.
21. No smoking inside the garden. Please extinguish cigarettes in sand bucket by the gate.
22. Participants will be kept up-to-date on the garden via email. If you do not have email access, please make sure you leave a phone number on your application so you may be notified of updates.
23. Summer gardening comes with a risk of heat exposure. The Mulford Garden Team recommends reading the attached *Frequently Asked Questions (FAQ) About Extreme Heat* published by the Centers for Disease Control and Prevention (CDC).

This is our first year to open and share the abundant area we have been provided with our community. We will be learning as we go, so please afford us your patience. If there are problems or issues you need resolved, please email those right away to the garden coordinator so we can quickly address them. Please remember that

most of our volunteers also hold down full time jobs, have families, and busy lives, but will respond to your need as soon as they are able. Thank you for partnering with us in using the land for the wonderful opportunity to garden!

Sincerely,

The Mulford Garden Team

2 Attachments

1. Hold Harmless Agreement
2. Frequently Asked Questions About Extreme Heat

Contact Information:

Mulford Church – 8AM – Noon – M – F  
(563) 263-7489  
2400 Hershey Avenue  
Muscatine, IA 52761  
(By the Soccer Field)

Garden Coordinator: Heather Harroun - 563-554-0028  
[jhsharroun@qconline.com](mailto:jhsharroun@qconline.com)

Outreach Chair, 2013: Betty Fyffe - (563) 264-0443  
[betty.fyffe@gmail.com](mailto:betty.fyffe@gmail.com)

## Activity Participation Agreement for the Community Gardens at Mulford Participation, 2013

Sponsored by: The Mulford Outreach Team – Garden Ministry

Names of Participant(s): _____	
Others who may be working in your plot: If children or teens, please list ages.	
Address:	
Home Phone:	Cell Phone:
Email:	

### Hold Harmless Agreement between Mulford EFCA and Garden Outreach Team Members:

I acknowledge that participation in the activity described above involves risk to the Participant (and to Participant's parents or guardians, if Participant is a minor), and may result in various types of injury including, but not limited to, the following: sickness, bodily injury, death, emotional injury, personal injury, property damage and financial damage.

In consideration for the opportunity to participate in the activity described above (Community Gardens at Mulford), the Participant (or parent/guardian if Participant is a minor) acknowledges and accepts the risks of injury associated with participation. The Participant (or parent/guardian) accepts personal financial responsibility for any injury or other loss sustained during participation in Community Gardening at Mulford. Further, the Participant (or parent/guardian) releases and promises to indemnify, defend, and hold harmless the Mulford Evangelical Free Church (EFCA) or Garden Outreach Team members for any injury arising directly or indirectly out of the described Activity (Gardening), whether such injury arises out of the negligence of the Mulford EFCA Garden Outreach Team, the Participant, or otherwise.

If a dispute over this agreement or any claim for damages arises, the Participant (or parent/guardian) agrees to resolve the matter through a mutually acceptable alternative dispute resolution process. If the Participant (or parent/guardian) and the Mulford EFCA cannot agree upon such a process, the dispute will be submitted to a three-member arbitration panel for resolution pursuant to the rules of the American Arbitration Association.

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

### Attachment 1

## **Frequently Asked Questions (FAQ) About Extreme Heat**

### ***What happens to the body as a result of exposure to extreme heat?***

People suffer heat-related illness when the body's temperature control system is overloaded. The body normally cools itself by sweating. But under some conditions, sweating just isn't enough. In such cases, a person's body temperature rises rapidly. Very high body temperatures may damage the brain or other vital organs. Several factors affect the body's ability to cool itself during extremely hot weather. When the humidity is high, sweat will not evaporate as quickly, preventing the body from releasing heat quickly. Other conditions that can limit the ability to regulate temperature include old age, youth (age 0-4), obesity, fever, dehydration, heart disease, mental illness, poor circulation, sunburn, and prescription drug use and alcohol use.

### ***Who is at greatest risk for heat-related illness?***

Those at greatest risk for heat-related illness include infants and children up to four years of age, people 65 years of age and older, people who are overweight, and people who are ill or on certain medications.

### ***What is heat stroke?***

Heat stroke is the most serious heat-related illness. It occurs when the body becomes unable to control its temperature: the body's temperature rises rapidly, the sweating mechanism fails, and the body is unable to cool down. Body temperature may rise to 106°F or higher within 10 to 15 minutes. Heat stroke can cause death or permanent disability if emergency treatment is not provided.

### ***What are the warning signs of a heat stroke?***

Warning signs of heat stroke vary but may include the following:

- An extremely high body temperature (above 103°F)
- Red, hot, and dry skin (no sweating)
- Rapid, strong pulse
- Throbbing headache
- Dizziness
- Nausea
- Confusion
- Unconsciousness

### ***What should I do if I see someone with any of the warning signs of heat stroke?***

If you see any of these signs, you may be dealing with a life-threatening emergency. Have someone call for immediate medical assistance while you begin cooling the victim. Do the following:

- Get the victim to a shady area.
- Cool the victim rapidly, using whatever methods you can. For example, immerse the victim in a tub of cool water; place the person in a cool shower; spray the victim with cool water from a garden hose; sponge the person with cool water; or if the humidity is low, wrap the victim in a cool, wet sheet and fan him or her vigorously.
- Monitor body temperature and continue cooling efforts until the body temperature drops to 101-102°F.

- If emergency medical personnel are delayed, call the hospital emergency room for further instructions.
- Do not give the victim alcohol to drink.
- Get medical assistance as soon as possible.

### ***What is heat exhaustion?***

Heat exhaustion is a milder form of heat-related illness that can develop after several days of exposure to high temperatures and inadequate or unbalanced replacement of fluids. Those most prone to heat exhaustion are elderly people, those with high blood pressure, and those working or exercising in a hot environment.

### ***What are the warning signs of heat exhaustion?***

The warning signs of heat exhaustion include the following:

- Heavy sweating
- Paleness
- Muscle cramps
- Tiredness
- Weakness
- Dizziness
- Headache
- Nausea or vomiting
- Fainting

The skin may be cool and moist. The pulse rate will be fast and weak, and breathing will be fast and shallow. If heat exhaustion is untreated, it may progress to heat stroke. See medical attention if symptoms worsen or last longer than one hour.

### ***What steps can be taken to cool the body during heat exhaustion?***

- Drink cool, nonalcoholic beverages.
- Rest.
- Take a cool shower, bath, or sponge bath.
- Seek an air-conditioned environment.
- Wear lightweight clothing.

### ***What are heat cramps and who is affected?***

Heat cramps are muscle pains or spasms – usually in the abdomen, arms, or legs – that may occur in association with strenuous activity. People who sweat a lot during strenuous activity are prone to heat cramps. This sweating depletes the body's salt and moisture. The low salt level in the muscles causes painful cramps. Heat cramps may also be a symptom of heat exhaustion. If you have heart problems or are on a low-sodium diet, seek medical attention for heat cramps.

### ***What should I do if I have heat cramps?***

If medical attention is not necessary, take the following steps:

- Stop all activity and sit quietly in a cool place.
- Drink clear juice or a sports beverage.
- Do not return to strenuous activity for a few hours after the cramps subside because further exertion may lead to heat exhaustion or heat stroke.

- Seek medical attention for heat cramps if they do not subside in 1 hour.

### ***What is heat rash?***

Heat rash is a skin irritation caused by excessive sweating during hot, humid weather. It can occur at any age but is most common in young children. Heat rash looks like a red cluster of pimples or small blisters. It is more likely to occur on the neck and upper chest, in the groin, under the breasts, and in elbow creases.

### ***What is the best treatment for heat rash?***

The best treatment for heat rash is to provide a cooler, less humid environment. Keep the affected area dry. Dusting powder may be used to increase comfort.

### ***Can medications increase the risk of heat-related illness?***

The risk for heat-related illness and death may increase among people using the following drugs: (1) psychotropics, which affect psychic function, behavior, or experience (e.g. haloperidol or chlorpromazine); (2) medications for Parkinson's disease, because they can inhibit perspiration; (3) tranquilizers such as phenothiazines, butyrophenones, and thiozanthenes; and (4) diuretic medications or "water pills" that affect fluid balance in the body.

### ***How effective are electric fans in preventing heat-related illness?***

Electric fans may provide comfort, but when the temperature is in the high 90s, fans will not prevent heat-related illness. Taking a cool shower or bath or moving to an air-conditioned place is a much better way to cool off. Air conditioning is the strongest protective factor against heat-related illness. Exposure to air conditioning for even a few hours a day will reduce the risk for heat-related illness. Consider visiting a shopping mall or public library for a few hours.

### ***How can people protect their health when temperatures are extremely high?***

Remember to keep cool and use common sense. Drink plenty of fluid, replace salts and minerals, wear appropriate clothing and sunscreen, pace yourself, stay cool indoors, schedule outdoor activities carefully, use a buddy system, monitor those at risk, and adjust to the environment.

### ***How much should I drink during hot weather?***

During hot weather you will need to drink more liquid than your thirst indicates. Increase your fluid intake, regardless of your activity level. During heavy exercise in a hot environment, drink two to four glasses (16-32 ounces) of cool fluids each hour. Avoid drinks containing alcohol because they will actually cause you to lose more fluid.

### ***Should I take salt tablets during hot weather?***

Do not take salt tablets unless directed by your doctor. Heavy sweating removes salt and minerals from the body. These are necessary for your body and must be replaced. The easiest and safest way to do this is through your diet. Drink fruit juice or a sports beverage when you exercise or work in the heat.

### ***What is the best clothing for hot weather or a heat wave?***

Wear as little clothing as possible when you are at home. Choose lightweight, light-colored, loose-fitting clothing. In the hot sun, a wide-brimmed hat will provide shade and keep the head cool. If you must go outdoors, be sure to apply sunscreen 30 minutes prior to going out and continue to reapply according to the package directions. Sunburn affects your body's ability to cool itself and causes a loss of body fluids. It also causes pain and damages the skin.

### ***What should I do if I work in a hot environment?***

Pace yourself. If you are not accustomed to working or exercising in a hot environment, start slowly and pick up the pace gradually. If exertion in the heat makes your heart pound and leaves you gasping for breath, STOP all activity. Get into a cool area or at least in the shade, and rest, especially if you become lightheaded, confused, weak, or faint.

This information provided by [NCEH's Health Studies Branch](#).

Centers for Disease Control and Prevention 1600 Clifton Rd. Atlanta,  
GA 30333, USA 800-CDC-INFO (800-232-4636) TTY: (888) 232-6348

Attachment 2