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How fast do we age?

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In other words, he said, the data indicates that 80-year-olds can theoretically run 69 percent as fast as they did in their prime.

For the jumpers, however, the statistics aren’t as encouraging. The decline in ability is about 10 percent for 40-year-olds, 20 percent for 50-year-olds, 30 percent for 60-year-olds, 40 percent for 70-year-olds and 50 percent for 80-year-olds, he said.

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“Age-grading can relieve two problems in Masters running; the inevitable and often depressing slowdown with age and the confusion with age-group awards,” says Joe Henderson, noted author of Running Commentary. “These tables give runners a way to improve indeﬁnitely and they give races a way to award fewer but more meaningful prizes.”

WAVA Age-grading or best performance scoring is absolutely essential in scoring runners in the Clydesdales, the vast majority of teams where ages vary and in Masters performances for prize money. Most Oklahoma races are using this system...the positive comments by the experts nationwide are too numerous to mention in this column.

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Also, ask for information on the Time Master Calculator which works directly in hours, minutes, seconds. It works as a stop watch and calculator.

Editor’s note: We suggest asking for a sample copy or information about a National Masters News subscription.

We have condensed tables available for each of the LDR distances. However, we suggest that you order the booklet and learn how to use all of the tables. We also have a Time Master Calculator which will convert any number to hours, hours and minutes or hours, minutes and seconds. This item is recommended also.
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Vanessa, W50, has been the premier thrower in her class for years. To think that she started out as a walker! She has set numerous records in all of the throws.

Jim, M65, has been untouchable as a high jumper, setting or equalling his own world records in most of his performances.

Tom, M75, has been among the top throwers in the country since he was a kid.

The Florida Athletic Club can boast of receiving more age group awards than any other club.

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Richard Strassberg, M.D.
Debra Kenward, M.D.
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CONCERNING MASTERS

Compare Performance By Age

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A series of "age factors" and "age standards," the tables can be used to compare performances at different ages.

While athletic performance declines during aging, the decline varies by event. For example, at age 40, a marathoner can run within two percent of his best-ever time, while a 40-year-old sprinter loses five percent. At age 50, the decline is nine percent for the marathoner and 11 percent for the sprinter. At age 60, the dropoff is about 15 percent. At 70, it's 25 percent, and at 80, 31 percent.

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One purpose of age-graded tables is to provide each individual with a percentage value to judge performance in any event without bias to age or sex. No matter how old one gets, this performance percentage will always be judged against the standard for one's age. As performances decline with age, so do the world standards that the tables use to calculate percentage, giving a true measure of performance.

The standards correspond approximately to world-record marks for a person of that age and sex in that event and show various achievement levels.

Age-graded tables can be used to keep track of your progress over the years; compare your performance to people of any age; estimate your performance in new events; compare performances of older and younger individuals in the same or different events; select the best performance in an event among all age groups, and select the best overall performance in a race.

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Older People Who Run Live Longer

When your non-running friends dare you to prove running is good for you, you can now point to an ongoing study at Stanford University which offers evidence older runners live longer than sedentary people and have significantly fewer age-related health problems.

The Annals of Internal Medicine reported that Stanford researchers compared 451 over-50 runners who exercised an average of four hours a week with 330 similar but sedentary people. Eight years into the study, the differences between the two groups was striking: 7 percent of the sedentary group had died compared to 1.5 percent of the runners; the male runners were 40 percent less likely to experience difficulty in performing everyday tasks such as eating, dressing or walking; female runners were 80 percent less likely to have such difficulties; and runners' medical expenses from doctor visits, hospitalizations and time lost from work was 24 percent lower than those who are sedentary.

The conclusion is that older people who run live longer and remain healthier.

FOR MORE INFORMATION:
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1995 5K FUN RUN
ALVIN, TEXAS

SUNDAY, MAY 27, 1995
(Memorial Day Weekend)
8:00 A.M. • KIDS MINI K
8:20 A.M. • 5K & Walkers

CHECK-IN & LATE REGISTRATION: 7:00 a.m. to 7:45 a.m.
Race start, Stanton's parking lot, corner of Taylor & Willis Street in Downtown Alvin.
START: 8:00 a.m. KID'S MINI K
8:20 a.m. 5K & WALKERS
The 5K Run & the Kids Mini K Run begins at the Reviewing Stand and follows the parade route. An exciting run before the parade, with parade crowd cheering you on to the finish.

AWARDS & PRIZES:
All entrants will receive a beautiful "Frontier Day" T-shirt. Awards will be presented in the 5K to: 1st, 2nd, and 3rd registered Male & Female winners in each group, Male & Female overall winner - NO prizes duplicated. Ribbons will be given to all participants in the Kids Mini K.

PACKET PICKUP:
May 26 3:00 p.m. • 6:00 p.m. Wellness - 210 E. House
May 27 7:00 a.m. • 7:45 a.m. At race site.

AGE GROUPS:
5K RUN:
14 and under 20 to 29 40 to 49 55 to 59 65 and over
15 to 19 30 to 39 50 to 59 60 to 64
KID'S MINI K:
11 years and under
WALKERS:
40 ages welcome.

FIRST AID & AID STATIONS:
Race certified and sanctioned by T.A.C. Emergency Medical Technicians will be available during the race. There will be two water stations. Showers available at Alvin High School.

ENTRY FEE:
KIDS K: $10 before May 25 $12 late registration
WALKERS: $10 before May 25 $12 late registration
5K RUN: $12 before May 25 $15 late registration
Make checks payable to: Alvin Rotary Club
Mail registration or entry to: Bobby Webb, 1516 S. Gordon, Alvin TX 77511

FOR MORE INFORMATION: (713) 331-6446 OR (713) 331-1495 OR (713) 331-3125

169.85 X 11" pages, spiral binding, with 36 chapters on all facets of putting on a race. Includes:
•Sanctioning and Certification
•Designing the Course
•Finding Sponsors
•Selecting a Finish System

Written by Ken Johnson, RRCA officer, runner and race director, with ten years of race management experience.

Perfect for individuals, organizations, clubs, etc. FOR YOUR COPY, SEND CHECK FOR $17.95 (includes sales tax, postage and handling) to: INSIDE TEXAS RUNNING, 9154 BRISTLEBROOK DR, HOUSTON, TX 77083.
OSTEOPOROSIS: Stopping the Clock

K, so you're not 90 years old, hunchbacked and concerned about osteoporosis (weakening of the bones with aging). More likely, you are a sports-active person who worries about creeping obesity more than bone density.

But perhaps you are worried about the bone health of your parents or grandparents. Despite their being "over the hill," you should invite them to come to the gym with you to start pumping iron! Strength training can provide youthful energy, stronger muscles, and less risk of falling. A comparison group of women who did no strength training lost two and one half percent bone density. Multiplying these changes over a period of years and the improvements become dramatic. This difference can not only reduce the risk of fractures among your beloved seniors, but also reduce the burden of our medical expenses. The hospital and nursing home costs associated with broken bones in the elderly are staggering, and will get far worse as Baby Boomers age—unless we try to stop the clock.

Research shows that weight lifting not only improves bone density but also contributes to other health benefits:

- **Bigger muscles.** Because bigger muscles boost the metabolic rate, well-built seniors are able to eat more calories than their frail friends, and thereby consume more health-promoting nutrients. If overweight is a concern, the higher metabolic rate can help reduce body fat by creating a calorie-deficit—no additional calories are eaten.
- **Stronger muscles.** By regaining the muscles from their youth, your parents/grandparents will be able to live independently, open jars, carry bags of groceries, prepare Thanksgiving dinner, and play with the grandchildren.
- **Better balance and reduced risk of falling.** If your parents/grandparents have frail muscles, they are more likely to lose their balance and fall, break their brittle bones and then be crippled for months, if not the rest of their lives. By rebuilding their muscles, they will have better balance and this alone reduces their risk of breaking a bone.
- **Increased enthusiasm** to participate in an active lifestyle. The more exercise an older person does, the more s/he will want to do. Life need not stop at age 70, 80, 90 or even 100! Strength training also lessens the severity of conditions such as diabetes, high blood pressure, arthritis and other ailments that promote inactivity, muscle wasting and reduced quality of life.

Teaching your parents how to take care of their bone health is one task. The second task is for you to take care of your own bone health—particularly if your mother is shrinking year by year, your aunt hunches over and unable to stand straight, your grandfather suffering from a broken hip. Osteoporosis has genetic tendencies and is common among people with life-long calcium-poor diets. You should be very concerned about your bones if you:

- dislike calcium-rich dairy foods, are lactose intolerant, consider milk a fattening fluid and avoid it like the plague, or have a calcium-poor diet for any variety of reasons.
- are a woman who no longer menstruates regularly. Even seemingly healthy young females with athletic amenorrhea (generally associated with an inadequate diet due to weight-consciousness) can have very unhealthy bones. That's why some teenage athletic has the bones of 60 year olds, get stress fractures (an early sign of poor bone health) and will never be able to fully regain their bone mass. Remember: the best years to deposit calcium into your bones are during your teens. You lose this ability with aging. After 25-30, your best bet is to maintain bone health with strength training and a calcium-rich diet.

Currently, most Americans consume too little calcium to optimize bone density. The National Institutes of Health advises us to boost our calcium intake to the following amounts per day:

- Growing adolescents/young adults 11-24 years: 1,200-1,500 mg; Women 25-50 years: 1,000 mg; Men 25-65 years: 1,000 mg; Men over 65 years: 1,500 mg; Pregnant and breast-feeding women: 1,500 mg; Postmenopausal women: 1,500 mg; Postmenopausal women: 1,500 mg; Men over 65: 1,500 mg.
- The richest and most convenient food sources of calcium are dairy foods. To eat eight ounces of plain yogurt (400 mg calcium) or milk (300 mg) three times per day does wonders for investing in your bone health. Even dieters can add this for only 300 calories—no excuses allowed! If you are lactose intolerant, try the lactose-free dairy products, or carefully select other calcium-rich foods such as lot of broccoli, calcium-processed tofu, calcium-enriched orange juice or sardines with bones. Calcium supplements are better than nothing, but whole foods are best.
- No bones about it: much of what we consider aging is really the cumulation of a lifetime of poor diets and inactivity. Let's stop the clock, eat wisely, boost calcium, do muscle-building exercise and add life to our years.

Nancy Clark, M.S., R.D., is the nutrition counselor at SportsMedicine Brookline. Her popular books "Nancy Clark's Sports Nutrition Guidebook" ($18), and "The New York City Marathon Cookbook" ($25), are filled with "how to" tips and are available by writing to Sports Nutrition Services, 830 Boylston St., Brookline, MA 02167.

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SATURDAY - JULY 29

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MAY-JUNE 1995
How Fast Do We Age?
New Data Suggests Not As Fast As We Thought

by Al Sheahen

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Team Competition...Various Categories and Proper Scoring Make it Fun

One of the more interesting and innovative ideas in road racing is team competition. The idea is not new, but very few races have really promoted the idea and again very few have used the proper scoring system. In past races, team recognition and awards seemed to get lost among all the other items at the awards ceremony. Since award ceremonies, in many cases, are long and boring, team results and awards were not available or were mailed to the winners later.

Most teams in Oklahoma are comprised of three members. Teams can have more than three but only the top three best times are combined for scoring. It is much easier for runners to recruit three members rather than five or more.

Here are a few of the team categories that have been used in the past: OPEN, MASTERS, CORPORATE, CLUB, FAMILY, FRIENDS, COED, MEDIA, SCHOOL, CITY, STATE and ALSO COUPLES and RELAY.

The OPEN team competition has been used quite often and is for the Open class runners. That is those who will have the best performance based on time only. In other words, the top three actual times are added together and the team with the best time wins. Open team scoring is simple and can be done on the spot with a calculator. Of course, each runner’s finish tag must have the team name or code on it for manual posting. Computer scoring will give you instant results.

Team competition is fun only if it is scored properly and equitably. One thing certain about team scoring...races using the categories above must evaluate and compare performances. Performance Comparison as determined by the World Association of Veteran Athletes is the ONLY way to do team scoring and do it equitably when ages and sexes are mixed. Keep in mind that the teams with the good performing runners are the teams that will win. This innovative system selects the best performing runners of all ages and both sexes. This system does not equalize poor performing runners with good performing runners. It determines the best performance considering both age AND time.

Here is an example of why WAVA scoring must be used: A small corporation comprised of six female employees wished to enter a team in a 5 km race which offered corporate team scoring. The top three women runners were ages 36, 56 and 62. Their best 5 km times were 20:19, 24:48 and 28:17 respectively. Two of these three times were in the state record book. Another corporation entered a team with three male runners, age 24, 24 and 28 with best times of 18:46, 18:58 and 19:12 respectively. Another corporation entered a team of two men and one lady age 29, 32 and 48 with best 5 km times of 15:48, 17:10 and 29:10 respectively. With corporate and most other teams you will get many combinations of ages and sexes. You can see at a glance which team would win using a system based on time only. Certainly, there is nothing fair about the all-female older team competing against the all-male younger team. Young, male runners equally trained will invariably reach the finish line first.

Performance Comparison or age-graded scoring by WAVA gives everyone an opportunity to contribute.

Some corporations or organizations may be large enough to enter more than one team. For example, if a corporation has 30 runners entered in an event, it could conceivably have ten separate teams. Most teams should have an extra runner or an alternate in case someone does not show. In other words, each team should have four members with the top three being scored. Some families have enough members to have more than one team in the family category. Considering the categories listed above, many of these would probably be able to field more than one team. This is additional fun...not only does each corporation or organization get to compete against other corporations and organizations, they will be competing among themselves! This is possible only if the WAVA scoring is used.

Couples scoring opens up other possibilities. Couples is usually a two person, male and female team. These couples are assigned to ten year age groups based on combined ages starting at age 29 and under through 110 and over. In addition, sub categories can be added such as, mother/son, father/daughter, brother/sister, husband/wife and so on. Of course, the WAVA system must be used to be fair. The question asked by some...is WAVA scoring necessary for couples teams since age groups are used? YES. For example, in the 70-79 age group, you could have two runners age 35 and 36, male and female. In that same age group you could have a 70-year-old female and a six-year-old male resulting in unfair competition.

Relay teams is another type of competition. The recent Run Armeric Relays in 1992 and 1993 was a fun event. Each team was comprised of three members in various categories. Each team member ran one 5 km segment in a 15 km race. Computer scoring was done on the spot by Glen’s Performance System. The time for each runner in each segment was listed in addition to the time for the first two segments and the total times. Every conceivable combination of results was printed on race day. Scoring is the same as that in a triathlon or a duathlon wherein five separate races are scored and posted. For example, the first 5 km, the second 5 km the total of the first and second 5 km’s, the third 5 km and the total of all three 5 km’s.

Team scoring does not eliminate runners from competing in the other categories, runners are still eligible for Open, age-group, Clydesdale, Masters and other awards. Team scoring is a supplement to the other categories.

Runners should encourage race directors to offer team competition. On-the-spot results is important to enhance the awards ceremony and make the entire event more fun and more meaningful. Many good runners have a copy of the WAVA tables which enables them to compare and project their performances.

---

BEAVER COWCHIP CLASSIC

10 km Road Race

Saturday

April 22

Downtown Beaver, Oklahoma

"Friendliest Race in the Panhandle"

25 mi bike race - 8:30 am
10 mi bike ride - 8:40 am
10 km Run - 8:40 am
1 mi run/walk/crawl - 8:40 am

Entry Fee:
Children age 12 & under $10 with T-Shirt
Ages over 12 $13 with T-shirt

USATF Certified Course, out & back
Sanctioned Event

Awards to Top 3 male/female in 25 mi bike race and 10 km; Medals to all age group winners.
Awards to top male & female finishers in 10 mi bike race and 1 mi run/walk.
Medals to all finishers in both events. Plus gifts to all participants.

Mail generic form to:
Merkey Campbell
P. O. Box 492
Beaver OK 73932

Check payable to Panhandle Windchasers
(405) 625-3179 day - Info

WE'RE PART OF OKLAHOMA'S RED CARPET COUNTRY

1-800-447-2698

OKLAHOMA RUNNER 19
CONGRATULATIONS

Congratulations to Clay Dickason, who placed 2nd Overall and 1st in Age Group at Tiblow Trot.

TAILGATES

Linda Fisher and I decided not to schedule Tailgates in September. However, if Bill and I are at the race, and it's cold enough for coffee, we'll bring the giant KCRR coffee pot and have coffee for all who want it. If you prefer that we plan Tailgates in advance, tell me or Linda.

NEW MEMBERS

I recently sent an updated roster to RRCA and have received a supply of RRCA Classic Visa card applications. A small revenue goes to RRCA whenever a member uses one of these cards. I also have a supply of Alamo Car Rental ID cards. They offer discounts to RRCA members. These will be available at the next meeting.

You should start receiving “Footnotes,” a quarterly publication. For those of you who belong to MAM, KCTC or Olathe Running Club, you will receive an additional copy. Bill & I now receive four copies of each issue.

CORPORATE WOODS COURSE

To my knowledge, there are presently two certified 5K courses in Corporate Woods. (Midsummer Morning has a very long overlap but is all on city streets.) Ekiden is a closed loop but goes off city streets onto private property for a brief distance.) The only certified 10K presently possible is twice around the Ekiden loop. There is no 10K possible that is all on city streets. I have been concerned that too many requests for use of the Ekiden loop could result in our not being able to get permission to use it for the Ekiden. Therefore, I have proposed that KCRR and MAM co-sponsor certification of two additional courses in Corporate Woods. (A 5K would only overlap 75%, a 10K would only overlap 150%.) We would then recommend that all 5K races and 10K races use the new courses that would be entirely on city streets. We feel that if we limit the request to use the section on private property to once a year for the Ekiden, chances will be better for getting that permission. The proposal was passed at our meeting in August and the MAM board passed it at their August meeting as well. I believe that since the Ekiden, with multiple loops and the need to have the exchanges all in one location, is the only race that actually requires a closed loop, it shouldn't be difficult to convince other races to opt for the new courses.

MORE RRCA NEWS

Notice the new RRCA logo on the outside of this issue of “Good Times”. Also in this issue is a copy of “Share the Road”, a public service project sponsored, in part, by RRCA. This is another benefit from KCRR's membership in RRCA. 75 cents of your KCRR dues is all it takes.

AGE & SEX ADJUSTED PERFORMANCE

The National Masters News in association with the World Association of Veteran Athletes (WAVA) has just published a book of age and sex graded standards for running events from 100 meters to the marathon. (Masters Age Graded Tables). These tables permit the comparison of performance to these ultimate standards on a consistent basis. The book was the basis of an article which recently appeared in the "Runners World" magazine where world class performances were graded against these standards.

The procedure used to produce the standards was to analyze results for each event to determine the potential best performance from reported times by age and sex. These results were then "smoothed out" (graduated is the term used by mathematicians) and tested for consistency. The result is a schedule of "standards" or times that can represent optimum performance for an age and sex and a set of factors which relate that standard to the overall optimum standard for that sex.

For example, if the standard for your age and sex was 30 minutes in the 10K and you ran 40 minutes, your "factor" would be calculated at 30 divided by 40 or .7500. That is, to adjust your time to a common standard requires you to multiply your time by 75%. This Personal Performance Percentage (PPP) can then be used to compare everyone to a consistent standard and determine your overall rank.

It's been determined that these PPP's are rather accurate in making comparisons. The level of these PPP's, for instance, indicates the following classifications:

- 90% World Class
- 80% to 90% National Class
- 70% to 80% Regional Class
- 60% to 70% Local Class

It is possible to tabulate results of a race using these factors to give you your "true winner" in relation to optimum. It has the drawback that you do not know where you stand with regard to your competition within a race. Competition, head on head, can be a powerful influence to some competitors. To correct this, a handicap start can be used. Several races (our picnic fun run was a version of this) have used handicap starts and they are not perfect either, though they are a lot of fun. One of the oldest handicap races is the St. Louis Track Club Stadium Run which finishes in Busch Stadium. It is scheduled for September 24 this year. The problem with a handicap start, in my opinion, is the loss of perspective as to where you stand. You are "on your own" more than in the usual 10K where you tend to run with the same group. In the handicap race you are passing or being passed. The Stadium Run gives awards to the first 150 who cross the finish line.
rather than in age groups. The winners over the years have tended to be older runners.

To get a feel for what the age & sex adjustments do, I have recalculated the "Pecking Order" using the reported times and the age attained in 1989. It produces some interesting changes to the order.

Garry Gribble is the age and sex adjusted leader and along with Jim Buckley and Bill Brands gives an over 50 group with outstanding ranking approaching world class standards. Joe O'Reilly dropped from 1st in raw time to 6th adjusted.

The greatest improvement in ranking was by Ann Williams (age 57) who jumped up a whopping 28 places. Jean Buchanan, (age 55) jumped 21 places and Jack Boyer (age 63) jumped 20 places with Noreen Hendley (age 49) improving by 18 places. Five members, Glenn Sauder, 4th, Susan Mathews, 28th, Frank May, 31st, Vicki Neal, 33rd, and John Bray, 55th, did not change position. On the other hand Peter Callan lost 15 positions and Dan Stover 14 with Buck Buchanan, Sherie Marchant and Dave Gatilff all losing 11 positions.

We will, from time to time, try to update the calculation if interest is expressed by the members.

NOTE: A form is enclosed with this mailing to use if you wish to update your PR or get your name onto the pecking order.

---

**PECKING ORDER: AGE & SEX ADJUSTED**

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How the "MOO" Run Works:
Each runner will be assigned a time advantage (head start) based upon their age and sex. Head starts ranging from no head start to 7 minutes or more in 15 second intervals will be given. Every 15 seconds a group of runners with the same head start will be sent off from the starting line until the "no time advantage" runners in the last group have started. The faster runners (presumed to be the young males) will have to catch up with the earlier starting runners to win.

Awards
The first 10 finishers will receive a unique and distinctive "MOO" Run award. Every entrant who donates a T-shirt will have the opportunity to pick out a different T-shirt in exchange, after they cross the finish line. Delegates from all over the country will be bringing T-shirts for this exchange.

Check out the headstart you will get in the accompanying chart and start practicing running from behind.

---

**REGISTRATION FORM**

In order to take part in the "Thursday Night in KC" events, the following form and waiver must be completed and the appropriate fee paid. Your official "MOO" Run race numbers will be available at the RRCA Convention Registration table at Crown Center. The form below should be completed and forwarded as soon as possible.

**Name**

**Address**

**Telephone**: Home __ / __ - __ / __

**Sex**: M F

**Age on 5/30/91**: ____________

**BE SURE TO BRING A T-SHIRT TO EXCHANGE!!!**

**RELEASE AND WAIVER:**

I know that running a road race is a potentially hazardous activity. I should not enter and run unless I am medically able and properly trained. I also know that there will be traffic on the course route. I assume the risk of running in traffic. I also assume and all other risks associated with running this event including but not limited to falls, contact with other participants, the effects of weather, including high heat and humidity, and the condition of the roads, all such risks being known and appreciated by me. I agree to abide by all decisions of the race officials relative to my ability to safely complete this race. I agree not to wear headphones during the race.

Knowing these facts, and in consideration of your accepting my entry, hereby, for myself, my heirs, executors, administrators or anyone else who might claim on my behalf, covenant not to sue, and waive, release and discharge Mid-America Racing Association, City of Kansas City, Missouri, including their police department; race officials, volunteers; any and all sponsors including their agents, employees, assigns or anyone acting for or on their behalf; from any and all claim or liability for death, personal injury or property damage of any kind or nature whatsoever arising out of, or in the course of, my participation in this event though this liability may arise out of negligence or carelessness on the part of the persons named in this waiver.

This Release and Waiver extends to all claims of every kind or nature whatsoever, foreseen or unforeseen, known or unknown.

The undersigned further grants full permission to Mid-America Racing Association and/or agents authorized by them, to use any photographs, videotapes, motion picture, recordings, or any other record of this event for any purpose.

Applications for minors will be accepted only with a parent's signature.

**Signature**

**Date**

**Parent/Guardian Signature (if under 18)**

**Date**

**Official Use Only**

**Time Advantage:**

- **FEE:**
  - __ I am registered for the convention and paid $5.00 previously.
  - __ I am registered for the convention. $5.00 enclosed.
  - __ I am not registered for the convention. $10.00 enclosed.
  - __ I am not registered for the convention. $5.00 enclosed.

- Please send me information about the convention.

Your donation to "1991 RRCA Convention" will help us bring in the best "MOO" Run.
"THURSDAY NIGHT IN KC"
Thursday, May 30, 1991

Part of the 1991 RRCA National Convention
May 29 to June 1

An Entire Evening of Fun
for only $10.00
($5.00 if you are registered for the convention)

<table>
<thead>
<tr>
<th>5K &quot;MOO&quot; RUN</th>
<th>6:15 PM</th>
</tr>
</thead>
</table>

To sign up
for the 5K "MOO" RUN
just sign up for "Thursday Night in KC"
plus bring one clean, unique T-shirt.

A 5K Fun Run which will start on the Mall at Liberty Memorial.
(An Age/Sex Graded Handicap Start)
T-Shirt Swap
Sponsored by Running Times

<table>
<thead>
<tr>
<th>KC BBQ and Jazz Party</th>
<th>7:00 to 8:30 PM</th>
</tr>
</thead>
</table>

included with your
"Thursday Night in KC" registration
Washington Square Park
(North of Westin Crown Center)
Sponsored by Hayward's BBQ and
Kansas City Track Club

<table>
<thead>
<tr>
<th>4th Annual RRCA Auction</th>
<th>8:00 to 9:00 PM</th>
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Conducted by RRCA’s
Jeff Darman and Phil Stewart

<table>
<thead>
<tr>
<th>Private Warehouse Sale Trip</th>
<th>9:00 to 11:00 PM</th>
</tr>
</thead>
</table>

Mr. Guy
Kansas City's own Traditional Clothier
Save Up to 60%

It's A 'MOO' ving Experience

The 1991 RRCA National Convention is Presented by Mid-America Running Association and Crown Center May 29 - June 1.

Over 400 delegates representing 460 running clubs across the United States and Guam, will attend.

If you would like more information about the Convention call 816/741-7551
**AGE AND SEX ADJUSTED FACTORS**

Who Really had the Best Performance at Prime Health in 1988?

By Bill Buchanan

If you said Mark Junkerman, who set a course record, you were wrong! It was our own Charlie Gray, who, though he ran 38 seconds more to complete the 10,000 meters, when his time is adjusted for age he comes out the winner, performing at 92.44% of his age and sex optimal standard compared to 92.39% for Junkerman, who is 11 years his junior.

The National Master’s News together with World Association of Veteran Athletes (WAVA), the international governing body for masters track and field, long distance running and race walking, have just published Masters Age-Graded Tables in which are presented a number of statistical factors based upon world wide performances in a number of running, field and walking events. These factors vary by age and sex, thus permitting, for the first time, the comparison of relative performances against an optimal standard.

In a recent Runner’s World article, Mike Tymn compared the best performance in the Marathon and 10K with some surprising results. That article was my incentive to investigate further. In Tymn’s article, he found the best relative performances were generally by older athletes. Using the age-adjusted factors, a 47 year old woman, Evy Palme, has the top-ranked performance in the marathon and 37 year old Carlos Lopes had the best 10K.

One natural use of the tables is to compare performances within a race against a standard so that the best relative performances can be determined. That is, instead of awards in age and sex divisions, it is possible to score a race against the standard and give recognition based on these age and sex factors. However, that is not the only possible use. For example, the factors allow an individual to compare their results and progress over a period of time. For instance, you can compare your time 5 years ago with a recent mark. Your PR may not be your best performance when adjusted for age. By comparing your personal results, patterns as to your progress can be revealed that otherwise might be hidden.

Further, comparison of one event with another is possible. This can tell you whether you are better suited for the 100 meters, 5K or the marathon. It may also allow you to predict how you might perform in a new event.

Finally, the factors can be used as the basis for handicap starts for races which would equalize the age-sex differences. Several events like this have been staged, including the St. Louis 10K Stadium Run where runners start at 30 second intervals based upon age and sex. The effect should be to reward the individuals who perform best against their age and sex standard.

The Kansas City Road Runners maintain a listing of 10K PR’s and 55 members are included on the list ranked by time. These were adjusted for age and sex and a “Personal Performance Percentage” (PPP) was calculated by dividing the standard target time by the actual time. This considerably “shook up” the ranking. While 7 of the top ten stayed in the top ten, the unadjusted leader dropped to 6th and number 3 became number 1. The 35th time, when adjusted, became number 7 and number 10 dropped to 21st. On average, an individual changed 6 to 7 positions (6.71 to be exact). Five people remained unchanged, 20 went up in rank and 30 went down. The largest jump up was 28 places by a 56 year old female and the largest drop was 15 positions by a 31 year old male.

These results led me to consider whether the results would change for a big race. I examined the results of the 1988 Prime Health 10K award winners to see what the results would be if awards had been presented based upon PPP’s instead of actual times and age divisions. Men received 115 awards and women received 72. Of these awards, 21 men (including myself) received awards who would not have received them, had the results been scored using PPP’s. That is, over 18% of the men’s awards did not go to the best performances according to this measure. For the women it was a similar situation with 12 of the 72 women, or about 17%, receiving awards that wouldn’t have, had PPP’s been used.

In the men’s top ten, 2 local runner’s standings would have improved with Charlie Gray becoming the overall winner and Jerry Morrison jumping from 185th to 9th place. The age group that was most under-represented in the 10K was the 25-29 who, by this method, would have had 10 more awards. Age 25-29 would have had 4 more, 30-34 6 more and 35-39 would have had 1 individual receive an award who did not. The groups that were “over-awarded” were the younger and older age groups.

Among the women, the top 5 would have remained the same and then 51 year old Delores Albertini would have jumped from a 231 overall finish to 6th among the women. The “under-awarded” age groups were 18-24 with 35-39 with 2. A Personal Performance Percentage of 90% or higher is considered to be World Class; 80% - 90%, National Class; 70% - 80%, Regional Class and 60% - 70%, Local Class. In the 1988 Prime Health men’s 10K the top 8 were 90% or higher and the top 10 averaged 91.11%. However, for the women, only one exceeded 90% and then only slightly at 90.15%. The average PPP for the top ten women was 86.12%.

Only a very limited review of the Prime Health Marathon factors was calculated, but it was clear that the percent ages were lower than in the 10K, perhaps reflecting the relative difficulty of the Prime Health Marathon course. The men’s ratios again exceeded the women’s results.

Another interesting aspect of adjusting times for scoring is that you do not know where you stand with respect to other runners in a race until after the race is scored. While it can be argued that this should promote all-out effort by all who wish to win, it also is true that head on head running produces strategic racing and may promote better times for individual runners.

The age and sex adjusted method of scoring has been well received by older runners, but the method has also had its detractors. Basil Honikman, who keeps statistics for TAC, points out the irony of the idea that “athletic competition is to see how good you really are accepting your physical and other limitations including age,” and “you can’t be first if someone beats you.” Honikman also implies that age graded results would encourage younger and older age groups at the expense of the other age groups.

Surprisingly, while it would seem that the older runner would benefit the most from the use of age graded factors, the usual methods of allocating awards under-represents the age groups that have the deepest level of top performances. In practice, many older runners receive awards whose performances are not particularly outstanding. On the other hand, some outstanding older runners go unnoticed as they typically receive their awards lumped together with the other runners of their age group, in spite of the fact that they may have finished as much as 10 minutes ahead of their age group competition.

Then there are the “Clydesdale” runners who believe handicap by weight is also a factor that should be recognized since the heavier runner has to do more work to accomplish a given time. They would argue that the factors should include weight as well as age and sex.

For anyone who is interested, if you wish to contact me, I can give you your target standard time so you may compute your PPP. Write me at Buchanan and Associates, Consulting Actuaries, Suite 100, 8575 W. 110th, Overland Park, KS 66210. Or, if you would like to order a copy of the Masters Age-Graded Tables, send $5.95 plus $1.30 postage and handling to National Masters News Order Dept., P.O. Box 2372, Van Nuys, CA 91401.
What is your 10K Target Time
By
Bill Buchanan

In a recent article I discussed the natural deterioration of race times as age increases according to the age-graded tables published by National Master's News together with World Association of Veteran Athletes (WAVA, the international governing body for masters track and field, long distance running and race walking). In response to that article I have had several inquiries from individuals wondering what their “target times” were.

Using the Tables to Determine Target Times:
The statistics suggest that times can be classified into categories based on how they compare to the World Record Equivalent for a given age.

1. 100% — World Record Equivalent
2. 90% (or better) of World Record Equivalent — World Class (competitive with the best in the world of that age and sex, winning or at least placing when the best in the world are represented)
3. 80% (or better) of World Record Equivalent — National Class (competitive among the best in the nation)
4. 70% (or better) of World Record Equivalent — Regional Class (competitive among the best in the region)
5. 60% (or better) of World Record Equivalent — Local Class (competitive among the best in local events)

You can use these categories to determine your target time from the charts at the end of this article, as explained under the charts.

(Note: I think it's safe to say that on average, in order to be competitive in races in the Kansas City area, you would need to target times that would fall into the Regional Class or better for your 5 year age group.)

Using the Tables to Determine Your Personal Performance Percentage (PPP):
If you calculate the ratio of the World Record Equivalent for your age and sex relative to your race times, you can determine your Personal Performance Percentage (PPP). You could then see at what level you are now performing.

It is easiest if you convert your times and target times to seconds before making the PPP calculations:

\[
\frac{\text{World Record Equivalent time (in seconds)}}{\text{Your time (in seconds)}} = \text{PPP}
\]

Using the Tables to Compare Your PR's at Different Ages:
You can compare your past times and your current times against a common standard by converting them to PPP's. Let's say, for example, that a male age 55 ran a 10K in 39:50 but has struggled to get below 40 ever since. This last year at age 40 he ran 40:07 and was disappointed in that he was so close to his PR. By using the chart he can calculate his PPP's as follows:

Age 35
1. His time of 39:50 is 2390 seconds.
2. World Record Equivalent time at 35 is 27:41 or 1661 seconds.
3. \[
\frac{1661}{2390} = 69.5\%
\]

His PPP at age 35 is 69.5% or high in the Local Class.

Age 40
1. His time at age 40 is 40:07 or 2405 seconds.
2. World Record Equivalent time at 40 is 28:33 or 1713 seconds.
3. \[
\frac{1713}{2405} = 71.23\%
\]

His PPP at age 40 is 71.23% or just within the Regional Class.

His age 40 time of 40:07 is actually a better time than his PR of 39:50 when comparing PPP's. He has actually improved his standing when comparing himself with others of his age, having moved up from Local Class to Regional Class.

From these charts you can compare age/sex specific performances with an objective standard based upon past national performances. Because the age-graded tables are based on past actual performances they may overstate the times that will eventually be achieved. In other words, when some of the current world class runners reach the higher ages, the records will get rewritten and the World Record Equivalents may lower accordingly.

The latest innovation suggests there ought to be statistical adjustments for weight and/or weight relative to height. We can probably carry this to extremes and get to the point where you are the only individual in your category. There are those who would say that's how we should be looking at our performances. any way. In any case, use of PPP's can add another dimension to our running and may help to keep those of us who are interested in that sort of thing out there on the roads.

Explanation if Using 5-Year Age Chart
In these charts times are given for males and females at every 5th age. If you would like a copy of the charts with times for all the ages from age 30 through 75, send your request to me at Buchanan & Associates, Consulting Actuaries, 8575 W. 110th, Suite 100, Overland Park, KS 66210.

OR, you can use a straight line interpolation to determine your own target time. To interpolate, calculate the total time difference from the ages just above and below your age. Divide the difference by 5 and multiply by the number of years your age exceeds the lower age. Add this to the lower age time.

FOR EXAMPLE: An age 38 male wants to target 60% PPP or “Local Class”:

He would look in the “Local” column and see that the difference between age 35 time (46:08) and age 40 time (47:35) is 87 seconds. Divide 87 seconds by 5 and get 17.4 seconds per year.

Multiply by 5 to get 52.2 seconds which is then added to 46:08 to get 47:00.2 or 47:00 when rounded. His target time would be 47:00 minutes.

...Continued on next page

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### 10K Target Times

#### Males

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<tr>
<th>Age</th>
<th>60% Local</th>
<th>70% Regional</th>
<th>80% National</th>
<th>90% World</th>
<th>100% World Record Equivalent</th>
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<td>38:27</td>
<td>33:39</td>
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<td>35</td>
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<td>39:33</td>
<td>34:36</td>
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<td>58:50</td>
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<td>44:08</td>
<td>39:13</td>
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<td>1:02:22</td>
<td>53:27</td>
<td>46:46</td>
<td>41:34</td>
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<td>75</td>
<td>1:06:23</td>
<td>56:54</td>
<td>49:48</td>
<td>44:16</td>
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<td>33:04</td>
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<td>57:22</td>
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<td>50:35</td>
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<tr>
<td>75</td>
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<td>1:06:21</td>
<td>58:04</td>
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Hospital Hill Half Marathon TACSTATS All-Time Rankings

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<td>'09</td>
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<td>Gail Landis</td>
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<td>1:19:47</td>
<td>'09</td>
</tr>
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<td>Ghana Brown</td>
<td>57</td>
<td>1:19:00</td>
<td>'09</td>
</tr>
<tr>
<td>Ed O'Neill</td>
<td>64</td>
<td>1:24:05</td>
<td>'09</td>
</tr>
<tr>
<td>Jack Cerney</td>
<td>61</td>
<td>1:24:55</td>
<td>'09</td>
</tr>
<tr>
<td>Jon Bloom</td>
<td>60</td>
<td>1:25:09</td>
<td>'09</td>
</tr>
<tr>
<td>Karleen Erickson</td>
<td>56</td>
<td>1:17:12</td>
<td>'02</td>
</tr>
<tr>
<td>Dean Resnick</td>
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<td>1:21:18</td>
<td>'08</td>
</tr>
<tr>
<td>Jim Evans</td>
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<td>1:22:55</td>
<td>'08</td>
</tr>
<tr>
<td>Les Linn</td>
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<td>'08</td>
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<tr>
<td>WIlde Pail</td>
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<td>'00</td>
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<tr>
<td>WIlde Pail</td>
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<td>'11</td>
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<td>Mark Clear</td>
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<tr>
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<td>'11</td>
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<tr>
<td>Charlie Darwin</td>
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<tr>
<td>Emmit Norren</td>
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<td>1:21:15</td>
<td>'14</td>
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<tr>
<td>Walt St twitch</td>
<td>76</td>
<td>2:15:30</td>
<td>'04</td>
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*Compiled by Mike Lundgren*
Adjusting Times for Age?

The World Association of Veteran Athletes (WAVA) has developed some ‘equivalency’ factors so that the performance of an older athlete can be compared against that of a younger athlete. This system is apparently working rather well in the track world and has attracted attention and generated much discussion. A set of ‘Masters Age Graded Tables’ has been published by National Masters News and in the introduction to these tables 16 purposes are listed. The first of these is to ‘keep track of your progress over the years’. Another is to ‘Give recognition to good performances in the upper age groups’ and still another is ‘to select the best performance in an event among all age groups’. The irony here is that the whole idea of athletic competition is to see how good you really are accepting your physical and other limitations including age.

We are concerned that by the use of the age graded tables the essential point of athletic competition may be overlooked - you can’t be first if someone beats you!

Basil Honikman

TacTimes August 1989 Page 2
HEAD START 5K
Fun Racer's Fund Raiser
Age Handicapping Gives Recognition to the Best Performances rather than to the Fastest Times.
By Bill Buchanan

On the hot Sunday morning of Labor Day Weekend, an age/sex-graded Head Start 5K race was held at the Liberty Memorial. A "head start" was assigned to runners according to their age and sex and the runners were sent off at 30 second intervals. The first runner back to the finish line was the winner. On this day, the first starter was also the first finisher. Jerry Morrison, with an 8 minute 30 second head start finished with the clock showing 12:38. Adding his head start gives Jerry a 21:08 actual time over the hot course which had one significant hill in the last mile. He finished nearly 3 minutes up on Ken Sells who finished with 15:32 on the clock, which, with his 5 minute head start, translates into a 20:32 5K time.

The first woman starter, Fritzi Hazelrigg, was also the first woman finisher. Her 8 minute head start added to her 19:04 clock time gave her a 27:04 actual time. Pat O'Brien, returning to the Kansas City area from Little Rock where she has lived for two years, was the second finishing woman with an actual time of 25:34 with a 3 minute 30 second head start.

The aging of the running population has been a factor in developing interest in age/sex-grading in race results. A number of races are beginning to use this method for determining awards.

For comparison purposes, I have computed the performance level ratios for the 1st 20 finishers in the Sept. 2 race. The resulting ratios are shown in the accompanying table. Because the head starts are assigned in 30 second intervals and performance level ratios vary by individual age, the performance ratios do not follow the exact order of finish but they are surprisingly consistent.

"The head start" concept is one of several methods for adjusting all runners, regardless of age or sex, to a common basis for comparing results. In theory, the head start, (or handicap) based upon national age/sex-graded time standards, adjusts all times to equivalent maximum performance. It gives everyone the same chance to compare against a consistent standard. Sixty-seven year old, Jerry Morrison is an outstanding local runner, as we all know, and this race clearly demonstrated just how excellent his performance level is.

A more accurate (though less dramatic) way to determine the best performance is to compute a personal performance ratio for each individual runner based on his/her actual time. Head starts would not be necessary. Using the "Head Start", though less precise, has the advantage of permitting those runners with the most outstanding performance levels to actually cross the finish line first.

In conventional races, the runners with the most outstanding performance level ratios may be further back in the pack. They don't get to enjoy the recognition that should accompany their performance. A "head start" gives them that opportunity.

The Liberty Memorial Mall was the site for the Head Start Race on Sunday, September 2.
DEFINITIONS

Head Start (Handicap):
A time advantage at the start of a race based upon national time standards for potential times related to age and sex. It is a simple and surprisingly accurate means for determining the best Age-Graded Performance at a given race. Runners will tend to finish in the order of their Performance-level Ratio.

Performance Level Ratio:
Your actual time is divided by the "time standard" for your age and sex in a given event. The result is your Performance Level Ratio (or Percentage).

1.000 (100%) World Record Potential
0.9000 or more World Class
0.8000 to .9999 National Class
0.7000 to .7999 Regional Class
0.6000 to .6999 Local Class

Age Adjusted Time:
Time on the clock when runners crossed the finish line. The clock was started when the "scratch" runners left the starting line.

Actual Time:
The actual amount of time it took the runner to complete the course. Runners in this race could determine their actual time by adding their head start to the clock time when they finished.

The aging of the running population has been a factor in developing interest in age-sex-grading in race results. A number of races are beginning to use this method for determining awards. The famous Dipsea race, cross country over the mountains of Marin County, California, has gone to an age-graded handicap start. This has resulted in champions ranging in age from 9 to 60 and four successive female winners until this year's finish when 30-year-old Sal Vasquez caught 8-year-old Megan McGowan in the last quarter mile of the 7.1 mile race in June of this year. The ICI/

USRA Masters Circuit used age-graded performance ratios in determining its Sorbothane Cup winner. St. Louis has, for several years, had a "head start" race in its Stadium 10K run. Local runner, Garry Gribble, finished second in that race in 1989 and Wesley Paul scored well in past years. Also, the Pelican Pursuit Race has used a head start concept.

It is the intention to keep a head start race on the Kansas City race calendar. The event will be used annually as a fund raiser for special running related projects. This year the funds raised will go to help defray the costs of hosting the RRCA Convention next June.

The race as it was held this year was combined with a T-Shirt swap where each runner donated a T-shirt. The donated T-shirts became the awards which could be selected by the runners according to their finish order. The T-Shirt Swap arrangement eliminates the expense of purchasing both T-shirts and Awards for the race, meaning that nearly all the funds raised from the entry fees can be used for the fund-raising cause.

For those who may want to try such a race, a head start 5K will be held as part of the RRCA Convention on Thursday evening before Trinity Hospital Hill in 1991. You can use it as a tune up for the Sunday Half Marathon and get the feel of this different concept in racing. Watch future issues of Master Pieces for more information about registering for the RRCA Convention as well as for the Head Start race.

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<tr>
<th>Order</th>
<th>Head Start</th>
<th>Name</th>
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<th>Actual Time</th>
<th>Order of Times</th>
<th>Age Adjusted Time</th>
<th>Performance Level Ratio (%)</th>
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<td>(7)</td>
<td>15:32</td>
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<td>18:23</td>
<td>(3)</td>
<td>15:33</td>
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<td>Mike Fisher</td>
<td>59</td>
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<td>15:30</td>
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<td>Michael Weber</td>
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<td>22:44</td>
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<td>20.</td>
<td>18:30</td>
<td>Dermott McGowan</td>
<td>55</td>
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<td>(23)</td>
<td>23:37</td>
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Sixty-seven year-old Jerry Morrison in the lead along the Liberty Memorial Mall. Jerry is an outstanding masters runner, and this race clearly demonstrated just how excellent his performance level is. The event will be used annually as a fund raiser for special running related projects. This year the funds will go to defray costs of the RRCA Convention.