**Acrylamide Poisoning**  
*Cancer from Overcooked Carbohydrates?*

News headlines on Thursday, June 16, 2005 warned that a 1-ounce serving of potato chips eaten daily exceeds safety levels for a recently discovered cancer-causing substance known as acrylamide – therefore these foods made by Lay’s, Kettle Chips, Cape Cod and Pringles should require a cancer warning under California’s anti-toxics law – Proposition 65.1

*continued on page 2*

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**Experts Know – Drug Companies Buy Research and Medical Journals**

As a practicing physician I do not know how to correctly prescribe medications. The reason for this is that the pharmaceutical companies have fashioned so much dishonest information about their products that common knowledge about them is utterly unreliable. As you will learn from reading the following article, even the most respected medical journals and the research they print are tainted beyond belief. After finishing this article you will further understand why my primary goal in your care is to get you out of the medical, surgical, and pharmaceutical businesses – and this can be done most effectively and safely by helping you regain your lost health. Sick people take drugs and visit doctors – healthy people don’t. Thankfully, there are increasing numbers of health professionals, like Richard Smith, coming to the aid of the near helpless consumer by telling the truth.

John McDougall, MD

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*Medical Journals Are an Extension of the Marketing Arm of Pharmaceutical Companies*  
*Richard Smith*

Richard Smith is Chief Executive of UnitedHealth Europe, London, United Kingdom. E-mail: richardswsmith@yahoo.co.uk

*Competing Interests:* RS was an editor for the *BMJ* for 25 years. For the last 13 of those years, he was the editor and chief executive of the BMJ Publishing Group, responsible for the profits of not only the *BMJ* but of the whole group, which published some 25 other journals. He stepped down in

*continued on page 7*
The instigating report from the Oakland-based Environmental Law Foundation followed an analysis of 12 varieties of chips. One variety, Cape Cod Robust Russet, contained 6.5 parts per million, which is 910 times more acrylamide than the level that the state's environmental health agency has determined to be an unacceptable risk. What's unacceptable? Some of the chips tested pose a risk of one or two cancers per 1000 people, which "everyone agrees is unacceptable." The lowest acrylamide levels among the 12 tested were found in Lay's Light KC Masterpiece BBQ chips, but they still contained 38 times the amount that the state considers acceptable.1

This is not the first time environmental groups have filed similar notices with the California state government about acrylamide in our foods. In 2002, an attempt was made to require Burger King and McDonald's to place warnings on French fries because of the acrylamide. That case has been stayed by a Superior Court judge pending a decision from the state's Office of Environmental Health Hazard Assessment on rules related to acrylamide.1

Can Cooked Carbohydrates Be Made Safer?

Consistent with the cliché "time is money," fast cooking at high temperatures means more profits for companies that are known for their "fast and convenient foods." Unfortunately, their methods of frying, baking, roasting, and grilling also put the consumer at risk. Rapid heating to high temperatures of an amino acid, asparagine (found in all foods) in combination with the common sugars (found in plant-foods), results in the formation of acrylamide.2 Cooking temperatures above 185 degrees centigrade (365 degrees Fahrenheit) readily produce this unwanted substance.2,3 Most importantly, acrylamide cannot be detected in unheated and boiled foods, because the minimal temperature to cause this conversion is 120 degrees centigrade.2,3 (Boiling takes place at 100° C, 212° F).

**Common Cooking Temperatures**

<table>
<thead>
<tr>
<th>Cooking Method</th>
<th>Temperature</th>
</tr>
</thead>
<tbody>
<tr>
<td>Steaming (sea level)</td>
<td>100° C (212° F)</td>
</tr>
<tr>
<td>Steaming (at 5000 ft.)</td>
<td>95° C (203° F)</td>
</tr>
<tr>
<td>Pressure Cooker</td>
<td>121° C (250° F)</td>
</tr>
<tr>
<td>Roasting (coffee)</td>
<td>190° C (374° F) to 220° C (428° F)</td>
</tr>
<tr>
<td>Roasting (peanuts)</td>
<td>160° C (320° F)</td>
</tr>
<tr>
<td>Frying</td>
<td>150° C (302° F) to 230° C (446° F)</td>
</tr>
<tr>
<td>Baking (bread crust)</td>
<td>120° C (248° F)</td>
</tr>
</tbody>
</table>

In this highlighted case of potato chips, manufacturers can reduce (but not eliminate) acrylamide levels by changing how the chips are processed – that is cooking them at lower temperatures and lengthening their cooking times. Even without the acrylamide, these greasy chips still promote cancer by other well-known mechanisms, such as excess calories, immune-system suppression from vegetable fats, and cellular damage caused by trans-fats.

What is Acrylamide?

Acrylamide is a white, crystalline, odorless substance used in a variety of industries.2 The most common uses are to purify drinking water and for sewage treatment – removing particulate matters by combining with solid impurities making them more easily filtered out of the water. Acrylamide is also used to make dyes, cosmetics, food packag-
ing materials (like paperboard), soil-conditioning agents, plastics, and grouting agents. In each of these uses, some of the original acrylamide remains in the finished product. Also, acrylamide is known to be a component of cigarette smoke.

The Discovery of Acrylamide in Foods

Swedish tunnel workers exposed to large amounts of acrylamide from a water sealant in 1997 were studied and compared to unexposed people. Surprisingly, the control group—those who had not been exposed to acrylamide at work—showed unexpectedly high levels of acrylamide in their bodies. This caused investigators to look for other sources of this agent besides industrial pollutants. By 2002, research led to the discovery of this substance in the diet of the workers. The main food sources were found to be French fries, potato chips, tortilla chips (fried), bread crusts, crisp breads, baked goods, cereals, and coffee. Up to 40% of all foods contain acrylamide.

Note that acrylamide in food is not the result of contamination from environmental sources, but rather from heating foods containing sugars (carbohydrates) and protein. Because acrylamide formation can be the result of traditional cooking methods it is believed to have been present in cooked foods for thousands of years, and acrylamide levels in cooked organic foods would not be expected to be any different than levels in cooked foods that are not organic.

Acrylamide values in selected food product (ppb)\(^5,6\)

<table>
<thead>
<tr>
<th>French fries</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>McDonald's French fries</td>
<td>497</td>
</tr>
<tr>
<td>Popeye's French fries</td>
<td>1030</td>
</tr>
<tr>
<td>Wendy's French fries</td>
<td>302</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Potato chips</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Lay's Classic Potato Chips</td>
<td>549</td>
</tr>
<tr>
<td>Kettle Chips Lightly Salted Natural Gourmet Potato</td>
<td>1265</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Commercial Potatoes</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>KFC Mashed Potatoes</td>
<td>&lt;10</td>
</tr>
<tr>
<td>Idaho Spuds Mashed Potatoes</td>
<td>0</td>
</tr>
</tbody>
</table>
### Acrylamide values in selected food product (ppb)  

**Continued**

<table>
<thead>
<tr>
<th>Food Product</th>
<th>Acrylamide Value (ppb)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Other Boiled foods</strong></td>
<td></td>
</tr>
<tr>
<td>Rice</td>
<td>0</td>
</tr>
<tr>
<td>Spaghetti</td>
<td>0</td>
</tr>
<tr>
<td><strong>Breads</strong></td>
<td></td>
</tr>
<tr>
<td>Pepperidge Farm Dark Pumpernickel (not toasted)</td>
<td>34</td>
</tr>
<tr>
<td>Pepperidge Farm Dark Pumpernickel (toasted)</td>
<td>364</td>
</tr>
<tr>
<td>Sara Lee Plain Mini Bagels (not toasted)</td>
<td>58</td>
</tr>
<tr>
<td>Sara Lee Plain Mini Bagels (toasted)</td>
<td>343</td>
</tr>
<tr>
<td><strong>Bakery products</strong></td>
<td></td>
</tr>
<tr>
<td>Dare Breton Thin Wheat Crackers</td>
<td>300</td>
</tr>
<tr>
<td>Wasa Original Crispbread Fiber Rye</td>
<td>504</td>
</tr>
<tr>
<td>Utz White Corn Tortillas</td>
<td>111</td>
</tr>
<tr>
<td><strong>Cereals</strong></td>
<td></td>
</tr>
<tr>
<td>General Mills Cheerios</td>
<td>266</td>
</tr>
<tr>
<td>General Mills Lucky Charms</td>
<td>176</td>
</tr>
<tr>
<td>Kellogg's Corn Flakes</td>
<td>77</td>
</tr>
<tr>
<td>Kellogg's Raisin Bran</td>
<td>156</td>
</tr>
<tr>
<td>Oatmeal Porridge</td>
<td>0</td>
</tr>
<tr>
<td><strong>Snack foods</strong></td>
<td></td>
</tr>
<tr>
<td>Orville Redenbacher's Gourmet Popping (Popcorn)</td>
<td>157</td>
</tr>
<tr>
<td>Herr's Extra Thin Pretzels</td>
<td>309</td>
</tr>
<tr>
<td>Snyder's of Hanover Veggie Crisps</td>
<td>832</td>
</tr>
<tr>
<td>Terra Stix</td>
<td>990</td>
</tr>
<tr>
<td>Blue Diamond Smokehouse Almonds</td>
<td>457</td>
</tr>
<tr>
<td>Planters Smoked Almonds</td>
<td>339</td>
</tr>
<tr>
<td>Smucker's Natural Creamy Peanut Butter</td>
<td>125</td>
</tr>
<tr>
<td>Ghirardelli Unsweetened Cocoa</td>
<td>316</td>
</tr>
<tr>
<td>Hershey's Cocoa</td>
<td>909</td>
</tr>
<tr>
<td>Good Health Natural Foods Honey Dijon</td>
<td>1168</td>
</tr>
<tr>
<td>Lipton Recipe Secrets Onion Soup &amp; Dip Mix</td>
<td>1184</td>
</tr>
<tr>
<td><strong>Coffee</strong></td>
<td></td>
</tr>
<tr>
<td>Maxwell House Slow Roast (ground, not brewed)</td>
<td>209</td>
</tr>
<tr>
<td>Maxwell House Instant Coffee (powder, not brewed)</td>
<td>263</td>
</tr>
<tr>
<td>Starbuck’s Coffee Columbia Ground (not brewed)</td>
<td>175</td>
</tr>
<tr>
<td><strong>Dairy and Meats</strong></td>
<td></td>
</tr>
<tr>
<td>Almost undetectable in most products. Those prepared with flour coatings and</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Chicken-bits</td>
<td>39</td>
</tr>
<tr>
<td>Deep fried fish</td>
<td>39</td>
</tr>
</tbody>
</table>

**Note: High Heat Frying, Baking and Roasting Means Acrylamide**

Values in parts per billion (ppb), but these values are similar to micro-grams/Kg.
Health Hazards of Acrylamide

In large doses, following long-term administration, this substance can damage the nervous system, impair fertility, harm genetic material, and induce the formation of tumors in experimental animals. Cancers of the thyroid gland, female breast tissues, male testicles, and mouth are most common. Because acrylamide causes cancer in laboratory animals in high doses, it is considered a potential human carcinogen.

The WHO estimates the lifelong (70 years) risk of cancer for people who consume 1 microgram/Kg a day is about 1 in 1000. A research group from Stockholm University and the National Food Administration (NFA) found one microgram of acrylamide in just half a gram of crisps (potato chips) or two grams of french fries. Estimates are that people typically eat an average of 35-40 micrograms a day of acrylamide.

However, there are uncertainties about the impact of acrylamide on human health, because investigations of populations of people have, so far, failed to confirm or disprove that this substance causes cancer in humans. Furthermore, there is not enough information to rule out the possibility that subtle effects can occur on the developing nervous system of the fetus at even lower doses than studied.

Is Anything Safe to Eat?

One reason this issue has reached national headlines, is that “people love to hear good news about their bad habits.” They think, since everything causes cancer, why should I bother to give up my cheese cake and chicken-fried steaks? People falsely believe they can now forgo eating their vegetables since this acrylamide revelation now makes, in their minds, potatoes a larger health hazard than red meat. This conclusion is false – and believing so puts you at great risk for common cancers of the breast, prostate and colon, and other health problems like heart disease, diabetes and obesity.

Grilling is usually reserved for cooking meat – a health-conscious person consumes meat only on special occasions in small amounts. Just because cooking meat produces no acrylamide, does not mean meat is off the hook as a health hazard. Cooking meat has been recognized for decades to produce many very powerful cancer-causing substances including heterocyclic amines, N-nitroso compounds (nitrosamines) and polycyclic aromatic hydrocarbons (benzopyrene).

Every respectable health organization and nutritionist has told people for the past four decades that the secret to good health and disease avoidance is to eat a diet made up largely of fruits and vegetables. Nothing has changed with this acrylamide scare. However, there is an important lesson to relearn with this headline: Do not damage your foods by overheating them.

Minimizing Acrylamide Exposure

In practical terms, don’t eat French fries, baked chips, and potato chips. Don’t drink coffee since this beverage is made from roasted beans. Does this advice sound familiar? Tea, even black tea with caffeine, is made by low-temperature drying processes, not roasting and therefore would have undetectable acrylamide levels. (See my July 2004: “Coffee - Pleasure or Pain,” and October 2004: “Tea Time Increases Life Time.”)

In general, there is a 10-fold difference in the amount of acrylamide between normal cooked and overcooked foods. Therefore, foods will always be safe with boiling and steaming, because the maximum temperature reached is only 100 degrees centigrade (212 F) – below the 120 degrees centigrade required to begin formation of this toxin. Microwaving will also be safe from acrylamide formation with low the temperatures reached by this method – but more research needs to be done on the safety of microwave cooking.
Eat fruits and vegetables uncooked whenever it is practical. Legumes (beans, peas, and lentils) and grains are traditionally prepared in boiling water. Steam or boil potatoes and green and yellow vegetables. Pressure cooking should also be safe; as would pan-frying your vegetables on a dry non-stick skillet. All of these methods keep the foods below 120 degrees centigrade. When baking breads or casseroles, using lower temperatures for longer periods will produce less acrylamide. Removing the crust from commercial breads will also reduce acrylamide exposure.

Always focus on the fact that our common cancers, breast, prostate, and colon, are rare in populations whose diets are based on cooked starches and vegetables, such as the rice-eating Japanese. These people, living on their traditional diet, enjoy the world’s record for longevity and also have almost no heart disease, type-2 diabetes, or obesity. Obviously, any acrylamide formed in their foods has had no serious impact on their robust lives.

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6) http://www.konsumentverket.se/html-sidor/livsmedelsverket/engakryltabell.htm

7) http://www.konsumentverket.se/html-sidor/livsmedelsverket/engakrylcancerstudier.htm

8) http://www.konsumentverket.se/html-sidor/livsmedelsverket/engakrylkonsumtion.htm


July 2004. He is now a member of the board of the Public Library of Science, a position for which he is not paid.

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"Journals have devolved into information laundering operations for the pharmaceutical industry", wrote Richard Horton, editor of the Lancet, in March 2004 [1]. In the same year, Marcia Angell, former editor of the New England Journal of Medicine, lambasted the industry for becoming “primarily a marketing machine” and co-opting “every institution that might stand in its way” [2]. Medical journals were conspicuously absent from her list of co-opted institutions, but she and Horton are not the only editors who have become increasingly queasy about the power and influence of the industry. Jerry Kassirer, another former editor of the New England Journal of Medicine, argues that the industry has deflected the moral compasses of many physicians [3], and the editors of PLoS Medicine have declared that they will not become “part of the cycle of dependency…between journals and the pharmaceutical industry” [4]. Something is clearly up.

The Problem: Less to Do with Advertising, More to Do with Sponsored Trials

The most conspicuous example of medical journals' dependence on the pharmaceutical industry is the substantial income from advertising, but this is, I suggest, the least corrupting form of dependence. The advertisements may often be misleading [5,6] and the profits worth millions, but the advertisements are there for all to see and criticise. Doctors may not be as uninfluenced by the advertisements as they would like to believe, but in every sphere, the public is used to discounting the claims of advertisers.

The much bigger problem lies with the original studies, particularly the clinical trials, published by journals. Far from discounting these, readers see randomised controlled trials as one of the highest forms of evidence. A large trial published in a major journal has the journal's stamp of approval (unlike the advertising), will be distributed around the world, and may well receive global media coverage, particularly if promoted simultaneously by press releases from both the journal and the expensive public-relations firm hired by the pharmaceutical company that sponsored the trial. For a drug company, a favourable trial is worth thousands of pages of advertising, which is why a company will sometimes spend upwards of a million dollars on reprints of the trial for worldwide distribution. The doctors receiving the reprints may not read them, but they will be impressed by the name of the journal from which they come. The quality of the journal will bless the quality of the drug.
Fortunately from the point of view of the companies funding these trials—but unfortunately for the credibility of the journals who publish them—these trials rarely produce results that are unfavourable to the companies' products [7,8]. Paula Rochon and others examined in 1994 all the trials funded by manufacturers of nonsteroidal anti-inflammatory drugs for arthritis that they could find [7]. They found 56 trials, and not one of the published trials presented results that were unfavourable to the company that sponsored the trial. Every trial showed the company's drug to be as good as or better than the comparison treatment.

By 2003 it was possible to do a systematic review of 30 studies comparing the outcomes of studies funded by the pharmaceutical industry with those of studies funded from other sources [8]. Some 16 of the studies looked at clinical trials or meta-analyses, and 13 had outcomes favourable to the sponsoring companies. Overall, studies funded by a company were four times more likely to have results favourable to the company than studies funded from other sources. In the case of the five studies that looked at economic evaluations, the results were favourable to the sponsoring company in every case.

The evidence is strong that companies are getting the results they want, and this is especially worrisome because between two-thirds and three-quarters of the trials published in the major journals—Annals of Internal Medicine, JAMA, Lancet, and New England Journal of Medicine—are funded by the industry [9]. For the BMJ, it's only one-third—partly, perhaps, because the journal has less influence than the others in North America, which is responsible for half of all the revenue of drug companies, and partly because the journal publishes more cluster-randomised trials (which are usually not drug trials) [9].

Why Do Pharmaceutical Companies Get the Results They Want?

Why are pharmaceutical companies getting the results they want? Why are the peer-review systems of journals not noticing what seem to be biased results? The systematic review of 2003 looked at the technical quality of the studies funded by the industry and found that it was as good—and often better—than that of studies funded by others [8]. This is not surprising as the companies have huge resources and are very familiar with conducting trials to the highest standards.

The companies seem to get the results they want not by fiddling the results, which would be far too crude and possibly detectable by peer review, but rather by asking the "right" questions—and there are many ways to do this [10]. Some of the methods for achieving favourable results are listed in the Sidebar, but there are many ways to hugely increase the chance of producing favourable results, and there are many hired guns who will think up new ways and stay one jump ahead of peer reviewers.

Then, various publishing strategies are available to ensure maximum exposure of positive results. Companies have resorted to trying to suppress negative studies [11,12], but this is a crude strategy—and one that should rarely be necessary if the company is asking the "right" questions. A much better strategy is to publish positive results more than once, often in supplements to journals, which are highly profitable to the publishers and shown to be of dubious quality [13,14]. Companies will usually conduct multicentre trials, and there is huge scope for publishing different results from different centres at different times in different journals. It's also possible to combine the results from different centres in multiple combinations.
These strategies have been exposed in the cases of risperidone [15] and odansetron [16], but it's a huge amount of work to discover how many trials are truly independent and how many are simply the same results being published more than once. And usually it's impossible to tell from the published studies: it's necessary to go back to the authors and get data on individual patients.

Peer Review Doesn't Solve the Problem

Journal editors are becoming increasingly aware of how they are being manipulated and are fighting back [17, 18], but I must confess that it took me almost a quarter of a century editing for the *BMJ* to wake up to what was happening. Editors work by considering the studies submitted to them. They ask the authors to send them any related studies, but editors have no other mechanism to know what other unpublished studies exist. It's hard even to know about related studies that are published, and it may be impossible to tell that studies are describing results from some of the same patients. Editors may thus be peer reviewing one piece of a gigantic and clever marketing jigsaw—and the piece they have is likely to be of high technical quality. It will probably pass peer review, a process that research has anyway shown to be an ineffective lottery prone to bias and abuse [19].

Furthermore, the editors are likely to favour randomised trials. Many journals publish few such trials and would like to publish more: they are, as I've said, a superior form of evidence. The trials are also likely to be clinically interesting. Other reasons for publishing are less worthy. Publishers know that pharmaceutical companies will often purchase thousands of dollars' worth of reprints, and the profit margin on reprints is likely to be 70%. Editors, too, know that publishing such studies is highly profitable, and editors are increasingly responsible for the budgets of their journals and for producing a profit for the owners. Many owners—including academic societies—depend on profits from their journals. An editor may thus face a frighteningly stark conflict of interest: publish a trial that will bring US$100 000 of profit or meet the end-of-year budget by firing an editor.

Journals Should Critique Trials, Not Publish Them

How might we prevent journals from being an extension of the marketing arm of pharmaceutical companies in publishing trials that favour their products? Editors can review protocols, insist on trials being registered, demand that the role of sponsors be made transparent, and decline to publish trials unless researchers control the decision to publish [17, 18]. I doubt, however, that these steps will make much difference. Something more fundamental is needed.

Firstly, we need more public funding of trials, particularly of large head-to-head trials of all the treatments available for treating a condition. Secondly, journals should perhaps stop publishing trials. Instead, the protocols and results should be made available on regulated Web sites. Only such a radical step, I think, will stop journals from being beholden to companies. Instead of publishing trials, journals could concentrate on critically describing them.

Acknowledgments

This article is based on a talk that Richard Smith gave at the Medical Society of London in October 2004 when receiving the HealthWatch Award for 2004. The speech is reported in the January 2005 HealthWatch newsletter [20]. The article overlaps to a small extent with an article published in the *BMJ* [21].

Examples of Methods for Pharmaceutical Companies to Get the Results They Want from Clinical Trials

- Conduct a trial of your drug against a treatment known to be inferior.
- Trial your drugs against too low a dose of a competitor drug.
- Conduct a trial of your drug against too high a dose of a competitor drug (making your drug seem less toxic).
- Conduct trials that are too small to show differences from competitor drugs.
- Use multiple endpoints in the trial and select for publication those that give favourable results.
- Do multicentre trials and select for publication results from centres that are favourable.
- Conduct subgroup analyses and select for publication those that are favourable.
- Present results that are most likely to impress—for example, reduction in relative rather than absolute risk.
References


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Mary in Your Kitchen
MAKING THE CHANGE TO A HEALTHY LIFESTYLE WORK IN YOUR LIFE
[Part 3 of 3]

5) COOKING TECHNIQUES

SAUTÉING WITHOUT OIL

To sauté implies the use of butter or oil. The McDougall Program eliminates the oil and instead uses liquids that gives taste without hazard. Surprisingly, plain water makes an excellent sautéing liquid. It prevents foods from sticking to the pan, and still allows vegetables to brown and cook.

For more flavor try sautéing in:

- Vegetable broth
- Soy sauce (Tamari)
- Red or white wine (alcoholic or non-alcoholic)
- Sherry (alcoholic or non-alcoholic)
- Rice vinegar or balsamic vinegar
- Tomato juice
- Lemon or lime juice
- Mexican salsa
- Worcestershire sauce

For even more flavor, herbs and spices, such as ginger root, dry mustard, and garlic can be added to these suggestions.

BROWNING VEGETABLES

Browned onions take on an excellent flavor and can be used alone or mixed with other vegetables to make a dish with a distinctive taste. To achieve the color of browning, as well as to flavor your foods, place 1 1/2 cups of chopped onions in a large nonstick frying pan with 1 cup of water or vegetable broth. Cook over medium heat, stirring occasionally, until the liquid evaporates and the onions begin to stick to the bottom of the pan. Continue to stir for a minute, then add another 1/2 cup of water or broth, loosening the browned bits from the bottom of the pan. Cook until liquid evaporates again. Repeat this procedure 1 or 2 more times, until the onions (or mixed vegetables) are as browned as you like. You can also use this technique to brown carrots, green peppers, garlic, potatoes, shallots, zucchini, and many other vegetables, alone or mixed in a variety of combinations.
BAKING WITHOUT OIL

To eliminate oil in baking is a real challenge, because oil keeps the baked goods moist and soft. Replace the oil called for in the recipe with 1/2 the amount of another moist food, such as Wonderslim Fat Replacer or Lighter Bake, applesauce, mashed bananas, mashed potatoes, mashed pumpkin, tomato sauce, soft silken tofu, or soy yogurt. (To purchase Wonderslim Fat Replacer online, go to www.healthy-eating.com.) Cakes and muffins made without oil are a little heavier. Be sure to test cakes and muffins at the end of the baking time by inserting a toothpick or cake tester to see if it comes out clean. Sometimes oil-less cakes and muffins may need to be baked longer than the directions advise.

PACKAGED HELP FOR COOKING

EGG REPLACER

Eliminating high-cholesterol, high-fat eggs from your diet means that you need a good binding agent for many recipes. A flour product, called ENER-G takes over this role very effectively in baking. Most natural foods stores carry this product. (Or you can order it directly from the company at www.ener-g.com.) To achieve the best results with this product, mix amounts according to package directions, then beat until very frothy, using a whisk, electric beaters, or a blender. ENER-G will not make anything resembling scrambled eggs.

AGAR-AGAR

Agar-agar is a natural vegetable "gelatin" product made from seaweed. It is sold in most natural foods stores, either as flakes or in powder form. Manufacturers use it to thicken salad dressings, and some ice creams, puddings, jellies and candies. You can also use it to jell liquids. Use 1 1/2 tablespoons of flakes or 3/4 teaspoon of powder to jell 1 cup of liquid. Use less to slightly thicken a homemade dressing.

EMES KOSHER GELATIN

EMES is a natural vegetable "gelatin" used to thicken salad dressings or to jell liquids. Use 1 tablespoon to jell 1 3/4 cups of liquid and slightly less for less thickening. EMES may be found in some natural foods stores or it may be ordered directly by entering emes kosher into your search engine and finding an online source.

GUAR GUM POWDER

Guar Gum powder is a natural vegetable "gelatin" used as a salad dressing thickener. Use between 1/2 and 1 teaspoon per cup of dressing. Allow to stand for an hour or longer. This product is also useful for thickening sauces to a spreading consistency. It can be purchased at most natural food stores.

SOY MILK

Soy milk is made from soybeans and water with a sweetener sometimes added. Regular soy milk contains 4 to 5 grams of fat per serving (40% fat). Low fat soy milks, called "lite" soy milks contain only 2 grams of fat per serving (20% fat). Westsoy makes a non-fat soy milk. (To reduce the amount of fat in soy milk, and at the same time thin out the strong taste of soy, dilute with an equal amount of water. This will improve the look and taste, especially when used on cereal.) Soy milk replaces cow's milk on a cup per cup exchange in all recipes.

RICE MILK

Rice milk has a lighter, sweeter taste than soy milk and is much lower in fat content. Made from fermented brown rice, it is white in color and has a consistency resembling cow's milk. Rice milk can be found in most natural foods stores or can be made at home.
Rice milk recipe:

Blend 1 cup of cooked whole grain (brown) rice with 4 cups of water in an electric blender. Add 1 teaspoon of vanilla for flavor (optional). Filter through strainer to remove coarse rice husks.

CHOOSING COOKWARE

Acceptable materials for cookware include glass, stainless steel, iron, nonstick-coated pans and porcelain. An important and easy way to eliminate oil from your cooking is to use non-stick coated pans. For baking pans, use silicone or a non-stick coating.

When buying cookware you need to pay most attention to the surface that your foods will contact, because always some interaction will cause your food to pick up molecules from the utensil's surface. Aluminum cookware should be avoided because of the possible association between aluminum ingestion and Alzheimer's disease. (If you're stuck with an aluminum pan or pot, put holes in the bottom and plant flowers in it.) For cake pans, loaf pans and baking sheets you can use parchment paper between the metal and your food. Parchment paper also keeps food from sticking to the surface of the pans. You can find it in most grocery stores. Parchment can also be used under (or over) aluminum foil, in order to keep the aluminum from coming in contact with the food. Place a layer of parchment paper over the food in a baking dish, then cover with foil, turning the edges over the pan to hold in the steam.

Recommended Cookware:

(1) saucepan 2 qt. (stainless steel or non-stick)
(1) saucepan 3 qt. (stainless steel or non-stick)
(1) saucepan 4 qt. (stainless steel or non-stick)
(1) 6 qt. stockpot (stainless steel or non-stick)
(1) 8 qt. steamer/pasta cooker (stainless steel)
(1) 12 qt. stock pot (stainless steel)
(1) griddle (non-stick coating)
(1) large frying pan (non-stick coating)
(1) 9 1/4 X 5 1/4 in. loaf pan (silicone or non-stick)
(1) 9 X 13 X 2 in. oblong baking pan (silicone or non-stick)
(1) 8 X 8 X 2 square baking pan (silicone or non-stick)
(2) muffin tins (silicone)
(2) baking trays (non-stick)
(1) 2 qt. covered casserole dish (glass)
(1) 3 qt. covered casserole dish (glass)
(1) 6 qt. covered casserole dish (glass)
(2) 9 X 13 oblong uncovered baking dishes (glass)
(1) 7 1/2 X 11 3/4 oblong uncovered baking dish (glass)

If vegetables stick while cooking in a pan or baking tray, let them cool for 5 to 10 minutes and they will loosen easily. Cooling will also loosen muffins from the tins.

COOKING BASIC STARCHES

The more you know about starchy foods the more likely you are to cook successful meals. Methods for boiling and steaming root vegetables, like potatoes, and for squashes and green and yellow vegetables are simple and can be found in any cookbook. Cooking legumes, grains and pastas is a little more difficult and many people are not familiar with all the varieties available.

LEGUMES

The legumes category includes many varieties of beans, peas, and lentils. They are easy to cook, either boiled on a stove top, simmered in a slow cooker, or prepared in a pressure cooker (except for soy beans, split peas and lentils). The most economical way to purchase legumes is in the dried state in large bags holding from five to 100 pounds. They store well in a cool dry cupboard for months. Before cooking, sort legumes by hand, removing stones and any seeds that are discolored. For a wonderful variety of heirloom dried beans go to beanbag.net.
BOILING LEGUMES

Place legumes in water in a large pot and bring to a boil. Reduce heat, cover, and cook at a gentle boil for recommended times. The longer you cook them, the softer legumes become, the more indigestible carbohydrates are broken down, and the less trouble you will have with bowel gas. Salads call for firmer beans cooked just to the point of being tender. Legumes for soups and spreads need to be cooked longer. Never add salt while cooking—it makes beans tough.

COOKING TIMES FOR LEGUMES

<table>
<thead>
<tr>
<th>Beans (1 cup)</th>
<th>Water (cups)</th>
<th>Time (hrs.)</th>
<th>Yield (cups)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adzuki Beans</td>
<td>4</td>
<td>1-1/2</td>
<td>2</td>
</tr>
<tr>
<td>Black Beans</td>
<td>4</td>
<td>1-1/2</td>
<td>2</td>
</tr>
<tr>
<td>Black-eyed Peas</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Garbanzos</td>
<td>4</td>
<td>3</td>
<td>2</td>
</tr>
<tr>
<td>Kidney Beans</td>
<td>4</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>Lentils</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Split Peas</td>
<td>3</td>
<td>1</td>
<td>2</td>
</tr>
<tr>
<td>Lima Beans</td>
<td>3</td>
<td>1-1/2</td>
<td>2</td>
</tr>
<tr>
<td>Pinto Beans</td>
<td>3</td>
<td>2-1/2</td>
<td>2</td>
</tr>
<tr>
<td>White Beans</td>
<td>3</td>
<td>2</td>
<td>2</td>
</tr>
</tbody>
</table>

Contrary to popular belief, beans do not need to be soaked before cooking. However, cooking times can be reduced by two methods: 1) Soak the beans overnight in enough water to cover them with 2 to 3 inches to spare. After soaking, drain off water and cook according to instructions, but reduce cooking time by 1 hour. 2) For a quick preparation that saves both time and energy, bring beans to a boil with the amount of water suggested above for 2 minutes, then remove from heat, cover, and let rest for 1 hour. Do not drain. Then proceed with directions given above, but reduce cooking time by 1/2 hour. If you use the longer cooking times with these methods you will end up with more thoroughly cooked beans.

SLOW COOKING LEGUMES

Slow cookers are convenient and they are an easy way to cook dried beans. Place legumes in the slow cooker, and cover with amounts of water listed above. Cook for 6-8 hours on high or 10-12 hours on low.

PRE-COOKED LEGUMES

Beans and lentils can be bought already cooked and packaged in bottles or cans. Black-eyed peas and soybeans can be found cooked and frozen. Even though the precooked packaged varieties are more expensive, you are paying for the convenience. Look for beans bottled or canned in water only or in water and salt. Drain and rinse beans before using in a recipe. In some recipes you do need to start with dried beans because the cooking liquid is the basis of a sauce. Canned and bottled beans may be used in recipes calling for cooked beans.

THE UNMENTIONABLE GAS

Bowel gas is produced by the action of intestinal bacteria on foods. Carbohydrates that have not been absorbed in the process of normal digestion by enzymes in the small intestine are moved undigested into the large intestine (colon) where bacteria break them down by the process known as fermentation. Five gases - nitrogen, oxygen, hydrogen, carbon dioxide, and small amounts of methane - account for 99% of bowel gas. These gasses are odorless. The strong odor of bowel gas comes primarily from products of bacterial putrefaction of animal proteins and fats in the large intestine. Avoiding animal products in your diet means cleaner and fresher air in your immediate vicinity.

The most common source of undigested carbohydrate is lactose from dairy products, such as milk, skim milk, and yo-
gurt (cheeses contain little lactose). The second leading gas-producing foods are legumes, whether they come as beans with hot dogs, or in a low-fat vegetarian chili. They contain two relatively indigestible sugars, raffinose and stachyose, that end up in the large intestine, where they are decomposed into gases by bowel bacteria. For people following the McDougall Program, adjustment to the new high-fiber foods occurs in time, and the amount of produced gas diminishes in about 2 weeks.

SOLUTIONS TO THE EMBARRASSEMENTS OF GASSES:

Avoid Gassy Foods: Milk products are troublesome for most non-Caucasian people (Asians, Blacks, Hispanics, Indians, Eskimos, etc.) who can't digest lactose; about 20% of Caucasians also have this trouble. Legumes--beans, peas, lentils, etc.--bother all races of people indiscriminately. Some individuals notice trouble with onions, bagels, pretzels, prunes, apricots, cabbage, carrots, celery, green peppers, broccoli, cauliflower, bananas, Brussels sprouts, and wheat germ. But this list of offenders depends on personalized sensitivities and, therefore, could incriminate almost any food.

Thorough cooking: Almost everyone seems to have a method of "de-gassing" beans.

Many cooks claim to have inherited the secret process from an authoritative grandmother. Thus, I've heard some say "add potatoes to beans during cooking", or "soak beans first, then discard the rinse water". My personal experience has found these methods of no benefit. Soaking helps, whether or not you discard the original rinse water, simply because soaking starts the breakdown of the carbohydrates and assists cooking. Thorough cooking helps by breaking down indigestible complex carbohydrates into simpler, more digestible forms.

Sprouting beans: One reliable way to "de-gas" legumes is to sprout them first. Cover beans with water for 12 hours, drain off water, lay damp paper towels on the bottom of a baking dish, spread out beans on the moist towels, then let them sprout for the next 12 hours. When you notice tiny white shoots (1/16") beginning to appear they are ready to cook. (There will not be green shoots and leaves.) The tiny plant is utilizing the indigestible sugars for growth. Needless to say, beans will take less time to cook after sprouting.

Beano: An acceptable product on the market, Beano, contains enzymes that are capable of breaking down the indigestible sugars in beans, peas, and lentils. Add a couple of drops to the first bite of food and then you can eat the rest without the problem of bowel gas. (Or so the label says....)

Activated Charcoal: For those who have found no other solution and need help, activated charcoal, sold in 260 mg capsules, has been shown to relieve discomfort and reduce the volume of gas. Activated charcoal for this purpose is popular in India and Europe, and has only recently been gaining acceptance in the United States. The exact mechanism of action is unknown, but it may inhibit gas producing bacteria, or enhance bacterial consumption of gas, or act by absorbing hydrogen and carbon dioxide.

GRAINS

Rice is the most familiar grain to Americans and the most commonly consumed food in the world. A large variety of whole grains are available to choose from in natural food stores. Experimenting with these different grains will pay off, because you will discover new favorite foods that rate high on both the taste and the nutrition scale.
Boiling is the usual way to cook these grains. Bring water to a boil in a sauce pan. Slowly add the grain, return water to a boil, cover, reduce heat to low, and cook until the water has been absorbed. Do not stir. For fluffier texture, allow grain to rest uncovered for 15 minutes after cooking. This helps dry the grain. For variation, try a mix of two or more grains, or use a vegetable stock instead of water. Grains can be cooked easier and more reliably in a rice cooker. Unfortunately, many brands of rice cookers have aluminum insert bowls. National (made by Panasonic) and Hitachi make rice cookers with a nonstick coating and stainless steel covers, protecting your food from exposure to aluminum. There are several more varieties on the market with non-stick bowls.

Bulgur may also be prepared by pouring boiling water over it in a bowl. Cover bowl with a kitchen towel and wait for 1 hour. Pour bulgur and water into a mesh strainer and press out excess water.

FIVE GRAIN RICE RECIPE

Use this mixture in place of plain rice for variety.

2 cups brown rice
1/4 cups barley
1/4 cup millet
1/4 cup wheat berries
1/4 whole rye or wild rice

PASTAS

Pastas are made from flour and water. Wheat is the most common flour ingredient, but there are combinations with other grain flours. Some pastas are entirely wheat free, like those made from quinoa, corn, and rice. All flours have had some of the fiber removed in the processing, and some of the more refined should be considered "white" flours. The 100% durum semolina pastas have the most flavor and body of the "white" flour pastas. The flour with the highest content of dietary fiber is whole wheat flour, and you will notice this by the coarser texture of these pastas. The most important clues to use when choosing pasta is to find one made of only flour and water, containing no eggs or oil. Good quality pasta makes a very palatable companion to simple, oil-free sauces. One online source is hodgson-mill.com.

<table>
<thead>
<tr>
<th>Whole Grains (1 cup)</th>
<th>Water (cups)</th>
<th>Time (hrs.)</th>
<th>Yield (cups)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Barley</td>
<td>2</td>
<td>60</td>
<td>3</td>
</tr>
<tr>
<td>Buckwheat</td>
<td>2</td>
<td>15</td>
<td>2-1/2</td>
</tr>
<tr>
<td>Bulgur Wheat</td>
<td>2</td>
<td>15</td>
<td>2-1/2</td>
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<tr>
<td>Cornmeal</td>
<td>4</td>
<td>30</td>
<td>3</td>
</tr>
<tr>
<td>Millet</td>
<td>3</td>
<td>45</td>
<td>3-1/2</td>
</tr>
<tr>
<td>Quinoa</td>
<td>2</td>
<td>15</td>
<td>3</td>
</tr>
<tr>
<td>Rice (brown)</td>
<td>2</td>
<td>60</td>
<td>3</td>
</tr>
<tr>
<td>Rye</td>
<td>2</td>
<td>60</td>
<td>2-1/2</td>
</tr>
<tr>
<td>Wheat Berries</td>
<td>3</td>
<td>120</td>
<td>3</td>
</tr>
</tbody>
</table>
June 2005                   The McDougall Newsletter              www.drmcdougall.com               Page 17

COOKING PASTA

For 1 pound of pasta, you need about four to five quarts of water. Do not add oil or salt to water. One pound of pasta will serve four people with normal appetites. Bring water to a rolling boil. Drop pasta into the water; it is not necessary to break long strands; they soften and sink into the water. Cook at a rolling boil, uncovered. Stir pasta occasionally. Test for doneness after 5 minutes, by biting into a piece. Pasta should be firm, never soggy: "al dente", as the Italians say. Cooking time will vary, but should take no longer than 12 minutes. When pasta is done, drain in a colander, rinse with cool water to help prevent sticking, and put in a bowl. Serve immediately, or mix with sauce before serving. Mixing with a sauce keeps strands of pasta from sticking together as they cool.

6) SEASONING FOODS

PLACE THE SALT SHAKER ON THE TABLE

Salt is the taste missed most when people switch to a healthful diet. If you feel the food is bland, then salt is what you are missing. Even if you never salted your food in the past, the amount in the prepared and packaged food you used to eat is substantially more than is available in an unsalted starch-based diet, giving only 100-300 mg daily. The way to improve the taste is to add salt, so the salt-appreciating taste buds on the tip of your tongue will be delightfully stimulated. Delightfully, please note, not dangerously!

The best way to keep intake under your control is to avoid, as much as possible, cooking with salt. Salt sprinkled on the surface of a food comes in direct contact with the tongue, providing the greatest pleasure for the smallest amount used. A few light sprinkles of salt will be enough for most people. Each half teaspoon of salt adds only 1150 mg of sodium. This generous amount used daily will please most people's palates. Altogether this amounts to a total of 1450 mg a day; 550 mg below the 2000 mg "low-sodium" diet served to patients dying of "heart disease" in your local hospital's intensive care unit. To bring the sodium intake up to the average of more than 5000 mg used daily by most Americans, you would have to pour more than 2 teaspoons of salt on the surface of your starch-based meals. This amount of salt would make the food unpalatable for most people.

If at first the food still tastes a little bland, be patient. You will soon adjust to less salt and new flavors. Appreciation of the salty taste of foods is a learned behavior. Enjoying a lower salt intake is simply a matter of changing your habitual use and exposing your taste buds to lesser amounts. Satisfaction begins in about 4 days.

HERBS & SPICES

When deciding whether to use fresh herbs or dried ones, consider how long the food is going to cook. For a long cooking time, dried herbs are generally used. For a short cooking time, use fresh herbs, if they're available, to really appreciate the flavors these can add to foods. For equal flavor you will need more fresh herbs than dried ones, because the dried ones are more concentrated. However, in time dried herbs lose their potency. Keep your herbs and spices in the cupboard or drawer away from light for longer shelf life. Replace older ones yearly.

Some Kinds of Pasta

- Semolina pasta-made from semolina wheat flour
- Artichoke pasta- made from dehydrated artichoke flour and wheat flour
- Buckwheat soba - made from buckwheat flour and wheat flour
- Corn pasta--made from cornmeal and water
- Quinoa-made from corn, quinoa, and sesame flours
- Rice-made from ground brown rice
- Soy pasta - made from soy flour and wheat flour
- Spinach pasta - made from ground dehydrated spinach and wheat flour
- Tomato pasta- made from ground dehydrated tomatoes and wheat flour
- Whole wheat pasta - made from whole wheat flour.
There are particular combinations of spices identified with ethnic dishes. You can take advantage of these spices to vary recipes and create new ones.

**SOY SAUCE**

Soy sauce provides a flavorful alternative to plain table salt. Don't be fooled into thinking there is no sodium in soy sauce. The regular variety has 800 mg of sodium per tablespoon, the low-salt varieties have 500 mg per tablespoon. When choosing a brand of soy sauce, avoid the ingredient monosodium glutamate (MSG). Many people have allergic reactions to this substance, and, of course, it represents another source of sodium. Soy sauce is also sold under the name Tamari. There are variations to the taste of soy sauces, depending upon the producer.

**SWEETENERS**

Sweet is the other pleasurable taste appreciated by the sensory buds on the tip of the tongue. You may wish to take advantage of this by adding a small amount of sweetener to the surface of your oatmeal. A teaspoon of cane sugar yields only 16 calories. This small amount is unlikely to make a difference between gaining or losing weight. But those few sweet tasting calories may be the difference that allows you to eat your oatmeal with pleasure. Other concentrated sweeteners include maple syrup, honey, molasses, brown sugar, and concentrated fruit juice.

Simple sugar is basically a sugar. There is little difference in nutritional effect between honey, maple syrup, molasses, brown sugar, or white sugar. They are all simple carbohydrates, best described as "empty calories." They contain no fiber, protein, or fat, and contribute little or nothing to vitamin and mineral needs. Artificial sweeteners have their drawbacks too. Their taste is not as pleasant as is that of natural sugars. They can cause unpleasant reactions, such as headaches in some sensitive people. A few people claim even more severe reactions. When you understand that sugar is a minor health hazard, unless used in very large amounts, then you'll realize there is little reason to resort to artificial sweeteners.
Featured Recipes

FLUFFY PANCAKES

These are a favorite breakfast in our home; and with Heather's help, they are better than ever. She added a few new flavor ingredients and also made them lighter with the addition of some sparkling water. These are easier to make than you would believe, and everyone loves them! These are wonderful served with a little maple syrup or applesauce. Jaysen and I like them plain!

Preparation Time: 10 minutes
Cooking Time: 10 minutes
Servings: makes 10-12 pancakes

¾ cup whole wheat pastry flour
¾ cup unbleached white flour
2 teaspoons baking powder
dash salt
1 cup mashed ripe bananas
1 tablespoon egg replacer mixed in ¼ cup warm water
1 tablespoon lemon juice
1 tablespoon Wonderslim fat replacer
1 cup soy or rice milk
½ cup sparkling water
1/3 cup fresh blueberries (optional)

Mix the flours, baking powder and salt together in a bowl. Place the bananas in another bowl and mash well. (This is about 2 ½ bananas.) Mix the egg replacer and water and beat until frothy. Add to bananas and mix well. Stir in the Wonderslim fat replacer, the lemon juice, the soy or rice milk, the sparkling water and mix again. Pour into the dry ingredients and stir to mix. Stir in the blueberries. Do not over-beat.

Heat a non-stick griddle over medium heat. Pour mixture by ¼ cup measure onto the dry, heated griddle. Flip and turn over when bubbles start to appear on the surface. Cook until brown on both sides. Repeat until all mixture has been used.

Hint: The new directions for Egg Replacer call for mixing with WARM water. This makes the mixture foamier and seems to work better in all recipes. I will sometimes whisk the mixture ahead of time (by 5 minutes or so) and let it sit on the counter until I need it in the recipe. The blueberries are an option in this recipe, but when fresh blueberries are in season they really make these pancakes a special treat! The addition of the sparkling water makes a delicious, light pancake that rises as it cooks. If you make the batter ahead of time, you may need to add a bit more liquid to thin it out slightly before pouring onto the griddle. This may also be made with all whole wheat pastry flour. It will be slightly heavier in texture. These may be refrigerated or frozen, and heated in the microwave or oven at a later time. We also like them cold as a snack.

BASIC MEXICAN BEAN FILLING

This is a basic bean mixture that I use rolled up in a corn tortilla, as a topping for a salad, as a spicy stew base, to top a baked sweet potato, added to Bean Enchiladas, or even as a topping for pizza. Ideas on how to use the filling for all of these follow this basic recipe. This may be made ahead of time and refrigerated or frozen for later use. This basic filling is easy to make over the weekend for several quick meals during the week.

Preparation Time: 15 minutes
Cooking Time: 30 minutes
Servings: makes 6 cups

1/3 cup water
2 large onions, chopped
4 cloves garlic, minced
1 jalapeno, minced (seeds removed, if desired for less heat)
1 tablespoon chili powder
1 tablespoon ground cumin
1 tablespoon ground coriander
4 15 ounce cans pinto beans, drained and rinsed
1 28 ounce can crushed tomatoes
¼ to ½ cup enchilada sauce

Place the water and onions in a large pan. Cook, stirring frequently until onions soften slightly. Add garlic and jalapenos, stir and cook until slightly softened. Add chili powder, cumin and coriander. Mix well. Add the beans and tomatoes, stir and continue cooking for about 15 minutes. Slightly mash the mixture with a bean masher while still in the pot. Stir well. Add the enchilada sauce to taste and heat through.

Variation: This may also be made with 1 can of beans and 4 cups of the Tofu TVP from the May 2005 newsletter. You can also make this with small red beans or black beans, or use a combination of different beans.

BEAN TACOS
Preparation Time: 5 minutes
Cooking Time: 5 minutes
Servings: 2

2 cups Basic Mexican Bean Filling
1 cup shredded lettuce
¼ cup chopped green onions
¼ cup chopped tomatoes
½ cup salsa
soft corn tortillas
chopped cilantro (optional)
Tofu sour cream (optional) (June 2002 newsletter)

Heat the Basic Mexican Bean Filling while preparing the toppings. Warm tortillas in the microwave or on a griddle on the stove. Spoon the warmed filling down the center of the tortilla and top with lettuce, green onions, tomatoes and salsa.

Add chopped cilantro and tofu sour cream, if desired. Roll up and eat.

TACO SALAD
Preparation Time: 5 minutes
Cooking Time: 5 minutes
Servings: 2

2 cups Basic Mexican Bean Filling
1 bag pre-washed salad greens
2 tomatoes cut into wedges
2 cups broken fat-free tortilla chips
½ cup salsa

Heat the Basic Mexican Bean Filling while preparing the toppings. Place the lettuce into a large bowl. Add the tomatoes, tortilla chips and salsa and toss to mix. Divide into 2 bowls. Spoon some of the warmed filling onto each salad.

MEXICAN BAKED SWEET POTATOES
Preparation Time: 5 minutes
Cooking Time: 45 minutes
Servings: 2

2 large sweet potatoes or yams
2 cups Basic Mexican Bean Filling

Optional toppings:
Tofu sour cream (June 2002 newsletter)
Chopped cilantro
Sliced jalapenos
Shredded soy cheese

Preheat oven to 350 degrees.

Scrub the sweet potatoes and prick with a fork. Place on a baking sheet and bake until tender, about 45 minutes.

Meanwhile, heat the Basic Mexican Bean Filling in a saucepan or the microwave.

Split open the baked potatoes, top with the bean filling and any of the options listed above.

MEXICAN BEAN STEW

Preparation Time: 10 minutes
Cooking Time: 20 minutes
Servings: 2

2-3 medium red potatoes, chunked
2 cups Basic Mexican Bean Filling
1 15 ounce can garbanzo beans, drained and rinsed
1 zucchini, chunked

Optional toppings:
Chopped onions
Shredded soy cheese
Tofu sour cream (June 2002 newsletter)
Chopped cilantro

Cook the potatoes in water to cover until slightly tender, about 10 minutes.

Meanwhile, place the Basic Mexican Bean Filling in a large pan with the garbanzos and zucchini. Bring to a boil, reduce heat to low, cover and cook for 10 minutes. Add the potatoes, mix well and continue to cook for another 10 minutes.

Serve in a bowl with any of the optional toppings listed above.

Hint: To make this less thick (more like a soup) add from ½ to 1 cup of vegetable broth or water to the filling when you begin to heat it.

MEXICAN BEAN ENCHILADAS
Original recipe is found in the May 2003 newsletter.

Instead of using the mashed pinto beans in the enchiladas, use the Basic Mexican Bean Filling instead. Or use it in addition to the mashed beans for even more flavor. If you make the filling with the Tofu TVP variation, then combine it with the beans, green onions, corn, and olives from the original recipe before rolling it up in the tortillas. It is a very simple way to make a fantastic enchilada casserole.
MEXICAN PIZZA

Preparation Time: 10 minutes
Cooking Time: 10-12 minutes
Servings: 6

- 2 cups Basic Mexican Bean Filling
- 1 large Kabuli Pizza Crust
- ¼ cup chopped onions
- ¼ cup chopped tomatoes
- ¼ cup chopped ripe olives (optional)
- 1 tablespoon chopped green chilies
- 1 cup shredded lettuce
- ½ cup salsa
- Tofu sour cream (optional)

Preheat oven to 450 degrees.

Spread the bean filling over the crust. Layer the onions, tomatoes, olives and green chilies over the beans. Bake for 10-12 minutes, until crust is golden. Remove from oven. Top with shredded lettuce, salsa and tofu sour cream, if desired. Slice and serve.

Hint: Kabuli pizza crust is made by Dallas Gourmet Bakery. Many natural food stores carry this brand. Or you may order it by calling (972) 247-9835. It is made with no dairy or added oils.

TOMATO AND BLACK BEAN SALSA
by Alex Bury, cooking instructor, The McDougall Program

Preparation Time: 20 minutes
Servings: variable

- 1 1/2 cups ripe fresh tomatoes, de-stemmed and diced
- 1 cup red pepper, de-stemmed, de-seeded, and diced
- 1/2 cup red onion, diced
- 1/3 cup green onions, thinly sliced
- 1/4 cup jalapeno pepper, de-stemmed, de-seeded, and diced—optional!
- 1/4 cup freshly chopped cilantro—optional!
- 1 tablespoon garlic, minced
- 3/4 cup cooked black beans
- 1-2 tablespoons lime juice, to taste
- salt and freshly ground black pepper, to taste

In a medium bowl, place the tomatoes, red pepper, red onion, green onions, jalapeno pepper, cilantro, and garlic, and toss well to combine. Add the black beans and toss gently to combine. Season to taste with lime juice, salt, and pepper, and toss gently. Serve as a condiment to Mexican or Southwestern style dishes, as a filling for sandwiches or wraps, or as a dip for raw veggies or baked tortilla chips.

Fresh salsa can be made of anything—use your imagination and what you have on hand!

Corn
Beans
Chopped fresh, raw veggies
Mango
Pineapple
Tomatillos (green, tart tomatoes)

Hint: Canned black beans may be used in this recipe.
Looking for More Recipes? Mary McDougall Recommends:

THE VEGGIE QUEEN COOKBOOK

Vegetables Get the Royal Treatment

By Jill Nussinow, MS, RD

Jill Nussinow has been one of the cooking instructors for the McDougall Program in Santa Rosa, CA. She knows more about vegetables than anyone I have ever met. Her new cookbook has just been released with over 100 seasonal recipes using all of those fantastic looking vegetables that you see in the market and have no idea what to do with. The cookbook is “McDougall Friendly” with a page dedicated to adapting the recipes to fit the McDougall program. It is filled with unique ways to make vegetables a delicious part of your meal plan.

For more information or to order go to www.vegetarianconnection.com.
Acrylamide (or acrylic amide) is an organic compound with the chemical formula CH₂=CHC(O)NH₂. It is a white odorless solid, soluble in water and several organic solvents. It is produced industrially as a precursor to polyacrylamides, which find many uses as water-soluble thickeners and flocculation agents. It is highly toxic, likely to be carcinogenic, and partly for that reason it is mainly handled as an aqueous solution. Acrylamide is clearly something we all want to avoid, but what is the best way to accomplish this? The first and most obvious way is to cook starchy foods at 250 degrees F or less whenever possible, paying close attention to the color of foods as they cook. Try to keep browning -- and charring in particular -- to a minimum. You should aim for a light, golden brown color. Another easy way to minimize acrylamide formation in carbohydrate foods is to blanch them in boiling water for a few minutes prior to frying, baking, or broiling.