Self Health News

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In Geoff's Words…

A recent article in prominent health supplement magazine started like this:

> "Widely used, dependable and safe, excipients will never be the subject of a *New York Times* exposé. But tablets and capsules couldn't exist without them."[1]

Both sentences are false! But I can see how a pro-manufacturing publication would have that viewpoint. Got a problem making your product? Just throw in an additive! If it's too dull, add dye. Too thin, add a thickener. Spoils easily, add preservative. Separates, add emulsifiers. Sticks to the container, add a release agent. There are excipients that help stick together, help dissolve, help lubricate, help harden, help soften, and so forth. No argument, excipients are useful. But are they safe and necessary as the article claims?

Here at Self Health Resource Center we are doing more manufacturing for one primary reason: control over what goes into each product. We don't want additives. But as a result of trying to live without them, I've become much more sympathetic to manufacturers who use them. We tried putting digestive enzymes in one of our encapsulating machines and after five minutes or so, the machine ground to a halt. It turned out that as the machine compressed the powdered enzymes prior to stuffing the capsule the enzymes became gluey. What to do?

If you believe that excipients are safe, you just add a little lubricant, like magnesium stearate. Now your capsules fill marvelously! And the best part is: small amounts like the quarter of one percent you added don't have to be declared on the label! So the manufacturer is happy and the consumer is happy (but doesn't know the truth).

If you believe that excipients may not be safe, you have a tougher problem to solve. You can't use the machine, and doing one capsule at a time, by hand, is not an option either. We ended up looking for other types of encapsulating machines, and found one that used an auger to fill, rather than pins that packed the powder. The digestive enzymes run fine, now, but most manufactures would rather spend a dollar's worth of magnesium stearate than $50,000 to $100,000 on an encapsulating machine.

Why do we do it? Pollution. When you manufacture a product it's very easy for impurities to be introduced. Two metal parts that are not perfectly aligned will rub together, causing minute amounts of metal to shed. The chemicals used to sterilize the machine may not be rinsed off completely. An aluminum scoop is left in the powder overnight and a minor chemical reaction introduces traces of aluminum. The "food-grade" oil that lubricates rotating parts oozes out. I hate to sound so negative, but there are lots of ways for products to pick up pollutants. By minimizing our ingredients, we minimize possible impurities.

We strive to produce vitamins and minerals that have only two ingredients: the vitamin itself, and the gelatin capsule. And it's also why we don't make tablets: they require compression agents, disintegration agents, release agents, and often more (check the label on any tabletted product).

There are, however, some situations that require us to add another ingredient. Take folic acid, for instance. One milligram is the dose, but even our smallest capsule holds one hundred twenty milligrams! So we add filler, which allows the capsules to be loaded. Oat bran is our preferred filler. Oat products typically don't cause allergic reactions, minimal processing is done to it (minimizing possible pollution), it runs nicely through our encapsulator, and it's a real food that is good for you! But it is chunky, and not well suited for our smaller capsules. So we also use cornstarch when needed.

That's why I disagree with the excipient article. It is possible to live without them. Plus I bet if we wait a while the *New York Times* will discover a problem with some, too!

[1] Wagner, J., editor, Nutritional Outlook, Oct 1999, p67.

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