

*Announcing Breakthrough Technology:*  
**Mediator Release Test (MRT®)**  
**Integration With Metabolic Typing®**

Mediator Release Test (MRT®) - Patented blood test that accurately identifies non-IgE immune mediated reactions to foods and food-components.

Metabolic Type® - Patterns of metabolic and biochemical individuality expressed through external and internal physiological and psychological traits, strengths and weaknesses that dictate specific reactions to foods and nutrients and thereby define individual nutritional requirements.

Metabolic Typing® - The specific, proprietary, systematic, testable, repeatable and verifiable means of determining one's unique Metabolic Type®.

[ Note: Metabolic Type and Metabolic Typing are Registered Trademarks of Healthexcel, the originator and world's leading authority on Metabolic Typing and customized nutrition. Mediator Release Test and MRT are Registered Trademarks of Signet Diagnostic Corp.]

## **Background**

For nearly 30 years, Metabolic Typing® programs have demonstrated an extraordinary and unsurpassed ability to optimize genetic potential, develop peak performance, and restore optimal health in people of all ages and with any health challenges. Whether the desire is for disease prevention, unfolding one's full potential, restoring youthfulness, energy and vitality, eliminating cravings, normalizing weight, or reversing existing degenerative conditions, Metabolic Typing® has proven time and again to be foundational to a successful outcome.

The key to disease prevention, health restoration, and health optimization can be encapsulated in one word: *adaptation*. The body is designed to be healthy. Every cell knows exactly what to do and how to do it properly. When stress of any kind (nutritional, structural, chemical, bacterial, viral, fungal, parasitic, environmental, etc.) occurs, the body's fundamental homeostatic control mechanisms respond by triggering appropriate responses to adapt and resolve the stress. But should the body's measures for adaptation fail, the acute stress become chronic, and the stress challenge remain unresolved, depletion of the body's reserves and exhaustion of its stress adaptation mechanisms results. If this unremitting state of compensation is left unchecked, first "sub-clinical" symptoms develop and then eventually full-blown, diagnosable, degenerative conditions manifest. Therein lies the reason for the universal success of Metabolic Typing® Programs with all manner of conditions.

Metabolic Typing® Programs, when properly implemented, address two primary considerations: doing all the right things and stopping all the wrong things. Those considerations are like two sides of one coin -- neither is sufficiently effective without the other. Eating according to your Metabolic Type® and all that entails covers doing all the right things. Eliminating "blocking factors" comprises stopping the wrong things.

All of the hundreds of thousands of biochemical reactions that take place each day are regulated by only a handful of fundamental homeostatic control mechanisms. Chronic stressors (external and internal), otherwise known as "blocking factors," impede, inhibit, disrupt, weaken, exhaust, or actually block the normal functioning of the body's vital processes, thereby effectively preventing the body's ability to adapt to stress. Thus, blocking factors act as causal factors of disease. *Even if*

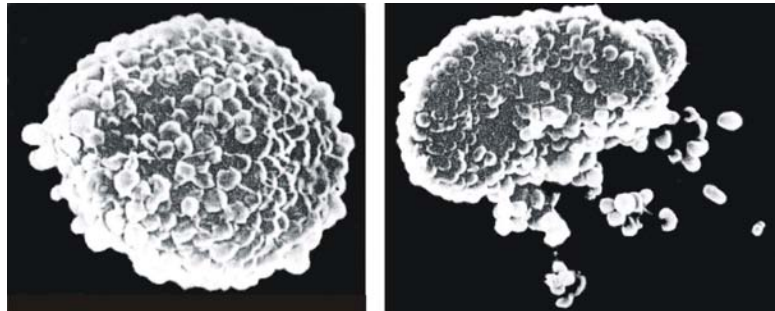
*one eats according to one's Metabolic Type<sup>®</sup>, as long as blocking factors are present, it will be impossible to restore or optimize health.*

***Immune mediated adverse food reactions are critically important blocking factors and represent primary causal components – both direct and indirect -- of many chronic, inflammatory, and degenerative conditions.*** They must be properly addressed if symptom remission and optimum health are to be achieved. The good news is that all dietary components that trigger clinical or subclinical symptoms, once uncovered, are completely within the control of the client to eliminate from his diet, enabling the full health benefits of Metabolic Typing<sup>®</sup> to be realized.

## **Different Kinds of Adverse Food Reactions**

Adverse food reactions can be defined as *any reaction to a food or food component that results in a physiologically negative consequence.* There are many different types of adverse food reactions. Some, such as *food sensitivities* and *food allergies*, involve the immune system while other

reactions such as lactose intolerance, don't. Although all types of adverse food reactions should be identified and properly addressed, *those involving the immune system represent the most important class of adverse food reactions as they are the most physiologically damaging.* The



damage comes from the release of proinflammatory (substances which facilitate inflammation) and proalgesic (substances with pain inducing properties) chemical mediators from leukocytes (white blood cells), which lead to a host of negative biochemical consequences and a wide range of clinical manifestations and symptoms. Thus, immune mediated reactions are of first importance and act as a critical blocking factor that must be addressed if good health is to be achieved.

## **Food Allergy and Food Sensitivity**

Immune mediated adverse food reactions can follow any of 3 different hypersensitivity pathways. In fact, the term “hypersensitivity” denotes the involvement of the immune system with each pathway defined by the mechanism that triggers mediator release.

- *Type 1* hypersensitivity (also known as food allergy) is an *IgE mediated reaction* wherein allergen specific IgE antibodies attach to mast cells. Upon each subsequent exposure to the allergic foods, the IgE interacts with the allergen causing a release of such toxic mediators as histamine, prostaglandins, and a whole host of other chemicals that directly cause the symptoms of allergy. Although food allergies tend to be the most well known due to the potential severity of the reactions where even death is possible (anaphylaxis), they are also the least common, affecting only 4% of the population. And, as IgE food allergy reactions tend to be acute and easily identifiable by the food allergy sufferer, they are not typically a factor in chronic, degenerative illness.

- Food sensitivity reactions on the other hand are much more common, affecting an estimated 40-50% of the population. However, rarely does anyone who comes to us for Metabolic Typing® *not* have food sensitivity reactions since those reactions are often involved in chronic illness. Food sensitivities present a much more difficult and complex puzzle, both from an immunologic standpoint and from a clinical standpoint. From an immunology standpoint, there are 2 food sensitivity pathways (*Type 3* and *Type 4*) involving 3 potential mediator releasing mechanisms (IgM, IgG, and T-cells) and 8 different types of immune cells that can release dozens of different mediators. (See the following for more information: [http://www-immuno.path.cam.ac.uk/~immuno/part1/lec13/lec13\\_97.html](http://www-immuno.path.cam.ac.uk/~immuno/part1/lec13/lec13_97.html).)

characteristics	type-I (anaphylactic)	type-II (cytotoxic)	type-III (immune complex)	type-IV (delayed type)
Mechanism	IgE	IgG, IgM, Complement	IgG, IgM, Complement	T-cells
Response time	15-30 minutes Late phase - 12 hrs	Minutes-hours	3-8 hours	4-72 hours
Histology	Mast cells Basophils Eosinophils	K cells NK cells Neutrophils Macrophages	Neutrophils Basophils Monocytes Eosinophils	T-cells NK cells Neutrophils Macrophages Basophils Monocytes Eosinophils

Comparison of Hypersensitivity Reactions

## Food Sensitivity Clinical Implications

From a clinical standpoint, food sensitivities are much more difficult for several reasons. Whereas the vast majority of food allergy IgE reactions (itching, rash, sneezing, etc.) tend to manifest within 15 minutes to 2 hours after ingestion, symptoms of food sensitivity (IgM, IgG, T-cell) can take from hours to even days to be experienced. In addition, food sensitivities are often dose-dependent. That means *a small or moderate amount of an offending food may cause a subclinical response but it takes a larger dose to produce clinical symptoms*. And because food sensitivities develop as a result of the breakdown of oral tolerance mechanisms, there tends to be a large number of reactive foods, not just one or two as seen in food allergy.

Frequent ingestion of reactive foods is effectively a chronic, unrelenting stress on the immune system, the adrenal glands, the mucosal barrier and thereby *many* metabolic processes too numerous to mention in this article. Chronic, unresolved stressors result initially in weakness, loss of efficiency and exhaustion in the adrenals and other adaptation mechanisms. *But even the subclinical responses from small doses of offending foods can play a significant role in the cascade of events leading to loss of function and efficiency over time that results in actual tissue, organ, gland, and system dysfunction, breakdown, illness and even death.*

## The Role of MRT® in Metabolic Typing®

Eating the correct foods for your Metabolic Type® while eating foods – or ingesting nutritional supplements -- that are also reactive to your immune system will at best significantly limit the benefits of a Metabolic Type® Program and at worst could actually prove causal of serious degenerative conditions. For this reason, we are extremely excited to introduce the renowned

Mediator Release Test (MRT<sup>®</sup>) as an integral part of Metabolic Typing<sup>®</sup> evaluations and programs. Not only is MRT<sup>®</sup> the gold standard of the industry, it is now being offered through Metabolic Typing<sup>®</sup> Programs at the best prices in the industry. No where else can you find a food sensitivity test more accurate or priced better!

The Mediator Release Test<sup>®</sup> is a patented “endpoint” test that accounts for both Type 3 and Type 4 hypersensitivity reactions to foods and food-components. *The principle value of MRT<sup>®</sup> is that it's able to accurately identify immune and inflammatory reactions in spite of the immunologic or physiologic complexities governing them, because it looks to the endpoint of food sensitivity responses – whether cellular mediator release occurs or not.* This

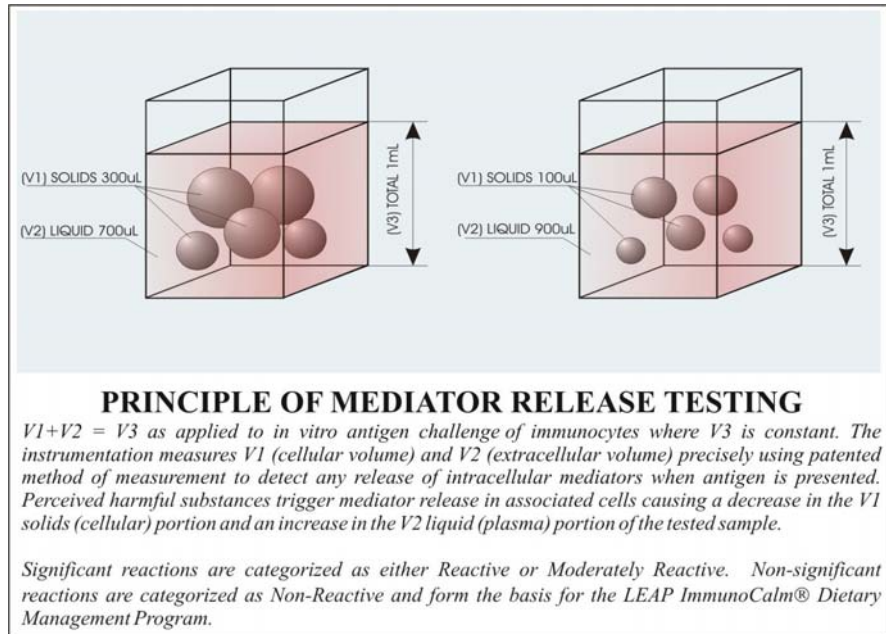
is why independent studies have shown MRT<sup>®</sup> to have the highest level of accuracy of any blood test for identifying reactive foods.

Symptoms of irritable bowel syndrome, migraine, fibromyalgia, rheumatoid arthritis, eczema, urticaria, autism, attention deficit disorder, obesity, and numerous other conditions can be directly linked to sensitivity reactions to substances we ingest. Reliably identifying these dietary triggers is the critical first step in “putting out the inflammatory fire,” calming the immune system, alleviating symptoms, and allowing the benefits of Metabolic Typing<sup>®</sup> to be realized. MRT<sup>®</sup> can help identify clinically relevant food and food-component reactions more accurately and more completely than any other blood test available in the world today.

To fully reap the benefits of Metabolic Typing<sup>®</sup>, it is just as important to identify and eliminate reactive foods as it is to eat foods right for your Metabolic Type<sup>®</sup>. To that end, every MT evaluation necessarily must include MRT<sup>®</sup>, as well.

## MRT<sup>®</sup> Test Profile For Metabolic Typing<sup>®</sup>

Signet Diagnostic Corporation, developers of the Mediator Release Test working in conjunction with Healthexcel founder William Wolcott, have assembled a MRT<sup>®</sup> test profile specifically for Metabolic Typing<sup>®</sup> Advisors and their clients. The MT-MRT 120 profile tests reactions to 120 specific food items - 112 foods plus 8 food-components (such as whey, caffeine, lecithin, etc. which are naturally occurring components of other whole foods). This profile will provide a strong foundation on which to begin a Metabolic Type<sup>®</sup> Program and will show more rapid remission of active disease states by eliminating reactive food items.



# Metabolic Typing® - Mediator Release Test®

## 120 Food & Food Component Profiles

<b>MT - MRT 120</b>	Almond	Cheddar cheese	Grapefruit	Papaya	Sunflower seed
	Amaranth	Cherry	Green pea	Parsley	Sweet potato
	Apple	Chicken	Green pepper	Peach	Tea
	Apricot	Cinnamon	Hazelnut	Peanut	Tomato
	Asparagus	Clam	Honey	Pear	Tuna
	Avocado	Cocoa	Honeydew	Pecan	Turkey
	Banana	Coconut	Kamut	Pineapple	Turmeric
	Barley	Codfish	Lamb	Pinto bean	Vanilla
	Basil	Coffee	Leek	Pistachio	Walnut
	Beef	Corn	Lemon	Plum	Watermelon
	Beet	Cottage cheese	Lentil	Pork	Wheat
	Black pepper	Cow's milk	Lettuce	Quinoa	White potato
	Blueberry	Crab	Lima bean	Raspberry	Yeast mix
	Broccoli	Cranberry	Mango	Rice	Yellow squash
	Buckwheat	Cucumber	Maple syrup	Rye	Yogurt
	Cabbage	Cumin	Millet	Salmon	Zucchini
	Cane sugar	Dill	Mint	Sesame	<b>Components:</b>
	Cantaloupe	Egg	Mushroom	Shrimp	Caffeine
	Carob	Eggplant	Mustard	Sole	Lecithin
	Carrot	Garbanzo bean	Oat	Soybean	Phenylethylamine
	Cashew	Garlic	Olive	Spelt	Potassium nitrate
	Cauliflower	Ginger	Onion	Spinach	Salicylic acid
	Cayenne pepper	Goat's milk	Orange	Strawberry	Solanine
	Celery	Grape	Oregano	String bean	Tyramine
					Whey

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