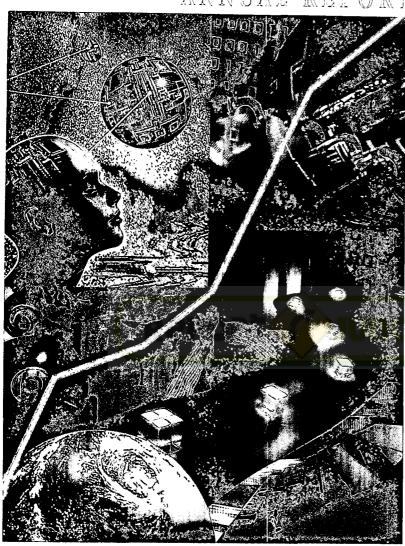


ANNUAL REPORT 1997-1998



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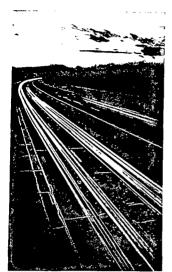
A Heartbeat called Growth







A modest start a little over a decade ago. A strong speciality presence in niche therapy areas today. And a vision that spans across tommorows. The singular undertone driving our business is this passion for growth. This shared quest is a common thread- across functions, departments, locations. This belief urges the team to reach even higher. It adds a sense of urgency. It raises the bar. Every yesterday sets a new benchmark. This shared excitement is the most vibrant component of our growth story



Exploring horizons

$1997 \text{-} 98\,\mathrm{was}$ for us a very exciting year - a year of dynamic

growth and consolidation. Over the years, we have chosen to carefully build an extensive speciality presence in chronic therapy areas. This clear business focus, with growth from older and new products, acquisitions, and increasing geographic expanse is perhaps the reason why this year too we continued to grow at a rate faster than industry average. We increased market shares across key products, introduced new treatment advances across segments, entered potentially high growth therapy areas and fortified our presence in key international markets. Each step added vital pieces to the overall picture-critical elements to our long term strategy of becoming a speciality pharmaceutical company with strengths in chronic disease areas across international markets.

upbeat on growth



The Outlook: Global

We increased market shares
across key products,
introduced new treatment
advances across segments,
entered potentially high
growth therapy areas and
fortified our presence
in key international markets.

As an extension of our strategy to expand our presence to attractive new therapy areas, Tamil Nadu Dadha Pharmaceuticals Ltd. (TDPL) was merged with Sun Pharma. For a close to 3% dilution in equity the returns were immediatenew therapy presence, wider market reach, improved distribution access and a full research pipeline.

TDPL adds disease areas with an exciting upside for growthgynaecology, pain management, anaesthesiology and oncology. Lifestyle changes, increasing lifespan, awareness and access to treatment, are just some of the reasons why these disease areas will advance on a high growth track. With several products and new treatments based on innovative approaches close to introduction in these segments, these areas are poised for major growth. A company that is most closely identified with these therapy areas and recognised as an aggressive first entrant will have a clear headstart. We will now work to replicate our niche therapy leadership in these disease areas. Steps to give us a clear marketplace edge have been implemented- innovative products have been quickly introduced, measures that strengthen customer relationships have been actioned and products based on new delivery systems close to launch. In a short span of just six months, this directional push gives us a lead in these high growth markets.



Adding critical skills: Dr.Gopal deciphers molecular structures at the NMR lab.



Vertically integrated for the manufacture of speciality bulk actives.

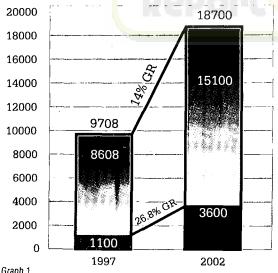
Faster than market growth: The Past

Sales numbers continued on a uptrend across markets. Sun Pharma now ranks 18th by prescription product sales, up from 27th rank last year. (ORG Retail Chemist Audits, March 1997 and 1998) Growth rate at 19.4 % is appreciably higher than 14% for the industry. Our share of the Indian prescription product market increased to 1.6% over 1.1% last March, up from the time of our public issue in 1994.

Specifically, products continue to grow much taster than the segments they compete in. (Table 1) Over the next decade, we expect these lifestyle led, chronic therapy segments to expand at a pace considerably faster than industry. (Graph 1 below)

Sun Pharma has by design identified potential high growth therapy areas in their infancy. A comprehensive basket of disease treatments innovative products and aggressive new product introductions have then helped Sun Pharma ride the crest of subsequent growth. The result: brand growth faster than market. The final prescription for growth: Strong customer relationships, products that meet patient needs.

Faster than market growth: The Future



Key participated market for Sun Pharma-Rs. 1100 cr. growing at 26.8% Non participated market for Sun Pharma-Rs. 8608 cr. growing at 11.9% The total Indian market for prescription products-Rs. 9708 cr. growing at 14%

Even on a conservative estimate, the speciality segments that Sun Pharma competes in are slated to outpace industry growth. the overall Indian Pharma market for prescription products is expected to grow by 14%- the market that Sun Pharma competes in is estimated to grow at a clipping 27%. Innovative new therapies, lifestyle changes and increasing awareness will drive this growth number even higher.

(ORG Retail chemist audits, Dec 1993-1997, CAGR of segments over the past 5 years have been used to forecast future growth to 2002)

Segment		1993	1994	1995	1996	1997*
Neurology	Mkt. Value (Rs. Lacs) Mkt. Growth SUN Brands Value (Rs. Lacs) SUN Brands Growth Sun Brands MS	7579 20 341 41 4.5	9407 24 518 52 5.5	10471 11 646 25 6.2	11838 13 834 29 7.0	16686 41 1414 70 8.5
Psychiatry	Mkt. Value (Rs. Lacs) Mkt. Growth Old Danger Old Dange	11785 25 1207	13596 15 1747	15284 12 2049	17030 11 2 4 07	23101 36 3417
		11	26	17	1/	42

	SUN Brands Growth Sun Brands MS	41 11.8	26 12.8	17	1/ 14.4	4 <i>2</i> 14.8	
Cardiology	Mkt. Value (Rs. Lacs) Mkt. Growth SUN Brands Value (Rs. Lacs) SUN Brands Growth Sun Brands MS	30144 24 1019 75 3.4	37366 24 1466 44 3.9	44071 18 1963 34 4.5	50582 15 2203 12 4.4	75175 49 3766 71 5.0	
Gastro	Mkt. Value (Rs. Lacs) Mkt. Growth SUN Brands Value (Rs. Lacs) SUN Brands Growth Sun Brands MS	8957 17 400 57 4.5	10684 19 622 56 5.8	10881 2 809 30 7.4	14699 35 1298 60 8.8	22675 54 1626 25* 7.2	

(1997 data is based on New Panel, Dec data, ORG Retail Chemist Audit, * After DPCO price cuts on Famocid)

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At almost 34% of domestic formulation sales, Psychiatry & Neurology was the largest segment.

Two products- Alzolam and Monotrate continued to march up the list of the top ranking 250 products in the country. 8 products are the top ranking in their category, 26 more rank among the top three most prescribed in their category. (ORG Retail Chemist Audit, March 1998). Products

introduced after 1994 contributed

30% to domestic prescription sales.

breaku Cardiology, Diabetology 25%

Critical care & Anesthesiology 4.5%

Psychiatry 23%

Neurology 10.5%

GI Tract 11%

Orthopedics and Pain Management 6.5%

Respiratory 9%

Antiinfectives 4%

Gynaecology & Fertility 6.5%

1. This is a breakup of domestic prescription products turnover. TDPL's products have been allocated among the therapeutic segments that they belong

2. Some large volume products, such as tranquilisers (psychiatry), promoted by the Sun and TDPL divisions for reasons of coverage are allocated to appropriate therapy segments.

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Speciality	Rank
Psychiatrists	1
Neurologists	1
Cardiologists	5
Diabetologists/Physicians with diabetology practice	6
Gastroenterologists/Physicians with gastro practice	6
Chest physicians	16
Oncologists	20 (up from 30 last year)
ENT specialists	24
Nephrologists	21
Orthopedicians	31 (up from 63 last year)

(CMARC prescription audits, Nov 1997- Feb 1998)

Customer satisfaction continues to be a

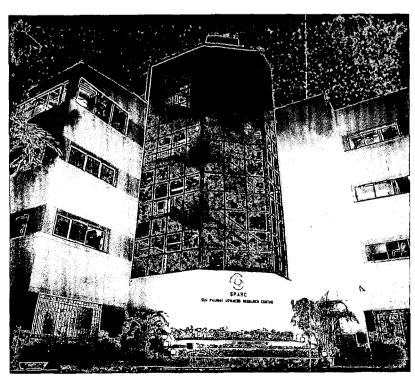
key attention area, crucial in all that we do. In an increasingly dynamic marketplace we fortified our ranking with key customer groups. The basis for this fast paced growth is an intangible- the credibility and trust that we have earned from key customers. In order to understand and serve customer needs better, marketing is now divided into six therapy specific marketing teams. These independent business units are lean and agile so that we can quickly respond to customer needs. This insistence on customer satisfaction is the reason why Sun Pharma has one of the most focused product portfolios and among the most aggressive new product plans in the Indian pharma industry.



Mr Mistry, a pharmaceutical technologist, develops an analytical method to estimate Angizem CD, a sustained release preparation for blood pressure control.

A stream of innovative products

and quick new product introductions have been a trait that sets us apart from competition. Our Rs 16 cr investment over the last 4 years at our research centre SPARC (the Sun Pharma Advanced Research Centre) has systematically enabled us introduce the latest molecules, often with a delivery system advantage. These products translate into actual quality of life patient benefit; for instance Syndopa CR (a controlled release antiparkinson), Zeptol CR (a controlled release antiepileptic), Dazolic (the only antiinfective of its kind in India). Skills in bulk manufacturing too, are designed to strengthen our formulations business. At our plants several critical bulk drugs have been commercialized with a cost or sourcing advantage.





Products based on tissue culture

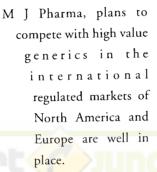
Korandil and Lacivas, two of the latest generation antianginals were introduced recently based on bulk active made in house. In house access to these bulk drugs allowed us to reach market ahead of others and at competitive costs. Tizan, a drug for spasticity and Gabantin, one of the latest antiepileptics was recently launched based on bulk manufactured in house. An early market entry is even more critical if a product is a likely blockbuster that can be registered across multiple markets.

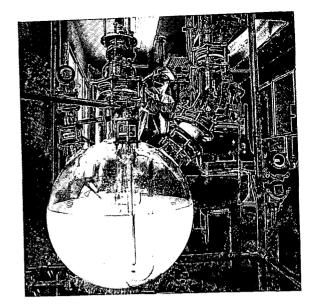
SPARC, Baroda. Scientists work on exciting projects that will create return streams across markets.



The same brand strategy responsible for our domestic success- new products, innovative dosage forms, focused promotion; is now being replicated across markets. High value prescription brands and speciality bulk actives are now well entrenched across 26 countries. This year, China and Sri Lanka continued to be high growth brand markets. Gains continued to be made in Russia, where Sun Pharma has a commanding presence with psychiatry and neurology. Internationally, speciality bulks have now crossed the acceptance leap. Our bulk drugs are now being ordered by large end users across Europe and Latin America. After

our investments in Caraco and





Among TDPL's strengths: complex anticancer processes

Our team at Sun Pharma works to high stretch goals-the quality and performance of the team have been central to the growth story at Sun Pharma. This constant need to enhance productivity against a backdrop of constant growth is a challenging task for the team. We prefer internal promotions, other than in instances where required skills are not available in house. This year, several skill enhancing training programs for the newly promoted added to field force enthusiasm. Several top performers

from the domestic markets were also offered challenging international assignments. Our team collectively became more flexible, responsive faster.



This team value adds chemistry research

Marketing pharmaceuticals Marketing pharmaceuticals

is all about building

long term customer

relationships and strong brands. relationships and strong brands.

This is why this annual report

highlights our marketing

divisions- new products, their relevance divisions- new products, their relevance

to therapy and the market to therapy and the market

potential that we intend potential that we intend

to capture with this to capture with this

powerful product range. powerful product range.

Number of representatives

<u> </u>	<u> </u>
	Sun division 269
	TDPL division 261
	Aztec division 155
	Synergy division 93
	Inca specialities 62
8	Globus 22

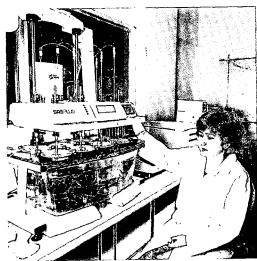
Synergy



Synergy: Corrects the chaos in the mind and the brain

Syndopa CR was launched to complement Syndopa, the number 1 brand for the treatment of Parkinson's Disease. Syndopa CR uses a matrix based delivery system that offers controlled drug release. This helps minimise problems like wearing off and a transient recurrence of symptoms, called on-off syndrome which are inherent signs of progression of the disease. To further complement the award winning disease awareness campaign that last year, Synergy sponsored a was released magazine for the Parkinson's disease foundation. Syndopa CR has received an enthusiastic prescription response.





A controlled release product must offer dependable symtom control. For this, accurate and predictable drug release patterns must be acheived. Here Naina, a member of the analytical team that worked on Zeptol CR, tests a developmental batch.

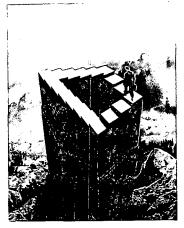
Synergy continues to be rated the number 1 company by neurologists as well as psychiatrists for the second year running . Synergy has a well entrenched treatment basket in the chronic therapy areas of psychiatry and neurology. This year, Synergy made a foray into two more interesting conditions- spasticity and neuralgia. Better treatment options compared to available therapy, aggressive marketing, dependable customer service are some of the reasons \$ynergy will continue to accelerate on a high growth path.

Epilepsy is one of the most important of all areas that Synergy addresses. Growth in this segment will be driven by increased coverage-of the 34 million estimated patients in the developing world, as many as 27 million are undertreated. Antiepileptic drugs are also increasingly finding usage in other neurological disorders. Synergy has a strong antiepileptic franchise with the major brands Zeptol, Encorate and Lonazep.

Zeptol CR (a sustained release form of carbamazepine) was introduced based on technology developed at SPARC. Zeptol CR uses a drug delivery system with coated granules that have different release patterns for even release of drug in the blood stream. This delivery system offers better control over symptoms often at lower doses. "Breakthrough" seizures are also avoided, and dosing does not need to be as frequent. Since symptom control is more dependable, and dosing frequency is reduced, compliance with medication schedules is much better. Zeptol, a strong brand, continued to display a double digit growth rate on an increasing base.



Richa, housewife and mother of two, was a happy homemaker. After the children had started school, life was even busier. There seemed to be so much she could do - write poetry, teach her maidservant's daughter to read and write; help out as a volunteer at the local branch of the spastics society, supervise her children's homework, run an efficient home- "like clockwork...", as her husband used to proudly say. Life was good- there was so much to do and only 24 hours to a day. Till suddenly something inside her changed.



Unravelling the mental health enigma

Richa, who was fastidious about good grooming, stopped being careful about her personal appearance. She told her husband that she suspected him of plotting against her, of communicating with her children in secret ways, such as in sign language which she couldn't understand. She began to hear her deceased mother- in- law's voice in her head - voices that were sending her commands, like a remote control. She stopped cooking, for fear of adding poison. Richa's distressed husband took her to a psychiatrist. After tests, Richa was diagnosed with schizophrenia. An intensive course of psychotherapy and medication were promptly started. Sizodon, the once a day medication that Richa was prescribed helps her handle symptoms much better-without pushing her into a pit of deep depression and withdrawal from everyday life, a frequent drawback with older drugs. Richa now looks forward to attending the next parent- teacher's association meet - not to mention the next episode of her favourite serial.

THE TOP 3 - SYNERGY

ORG MAT March 1998

	Val	MS%	GR%	Rank	Mkt size	MktGR%
Syndopa	5.21	27.8	7	4	18.92	8.9
Zeptol	3.73	3.3	29	3	111.6	16.1
Clofranil	3.40	4.5	18.7	1	75.6	25

Values in Rs. cr.

Antiepileptic therapy is fairly dynamic, with newer drugs designed for specific kinds of epilepsy now reaching market. A product with clear usage advantages among the latest antiepileptic molecules, Gabapentin, has being made at our bulk drug plant in Ahmednagar. Gabapentin offers effective symptom control with improved side effect profiles. Recently completed trials have established Gabapentin's efficacy as monotherapy for epilepsy.



Bipolar mood disorder: swinging between two mood extremes

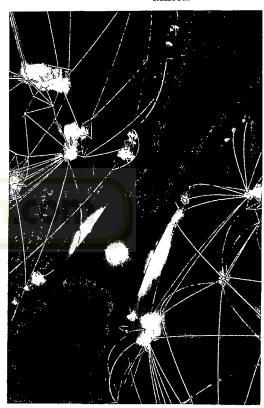
With a biological basis for Schizophrenia now firmly established, several new brands- Sizodon, Sizopin- were introduced to fortify our presence in this important therapy area. Sizodon, one of the latest antipsychotics is expected to become the benchmark for antipsychotic therapy. Sizodon was launched this year to an excellent response, and is already the leading brand in terms of new prescriptions. Sizodon prevents symptom relapse, and is effective in treating irrational thought processes and social withdrawal that mark schizophrenia. Sizodon overcomes side effects that limited use of earlier therapy-tremors and depression. Sizodon is being tested for use in Schizophrenia associated with dementia.

□ SCHIZOPHRENIA is a complex and the most chronic and disabling of the major mental illnesses. It is estimated to affect 1 to 1.5% of the population. Like cancer and diabetes, schizophrenia has a biological basis; it is not caused by bad parenting or personal weakness. With a sudden onset of psychotic symptoms the person is said to be experiencing schizophrenia. Psychotic means out of touch with reality or unable to separate real from unreal experiences. These persons may experience hallucinations, hear things that other people don't hear, or see objects that are not really there. Feelings of persecution, disordered thinking, inappropriate emotional response are some of the common symptoms. The individual with recurring symptoms requires long term treatment to control symptoms. While there is no known cure, medication usually helps to control symptoms.

66 The mind is its own place and in itself, can make a heaven of hell

and a hell of heaven

- Milton 99



Epilepsy: the neuron's raging storm

 $\hfill \Box$ EPILEPSY is a condition of spontaneously recurring convulsions, produced by abnormal electrical discharge in the brain. Epilepsy is the most common neurological disorder the worldover, with over 40 million patients affected- estimates are that 5 to 10 persons per 1000 have epilepsy. The normal brain constantly generates electrical rhythms in an orderly way. In epilepsy, this order is disrupted by some neurons discharging a flood of signals at the same time instead of one after the other- an electrical storm. This simultaneous firing of a large number of brain cells disrupts normal behaviour and causes the shaking in seizures. Seizures can last from a few seconds to a few minutes - in rare cases, upto an hour. This could be due to a genetic effect- as in some types of inherited epilepsy- or neurons that are made unstable due to low blood glucose or alcohol. Or it could be generated by trauma to some part of the brain- after a head injury or very rarely, due to a tumour. Virtually anyone can have epilepsy- and it can strike at any age. In several cases, specially with children who have epilepsy in earlier years, with age seizures reduce in intensity.

PARKINSON'S DISEASE is a progressive loss of function of nerve cells in the part of the brain that controls muscle movement. This chronic, progressive disorder is estimated to affect 1 to 2 persons per 1000, with the incidence increasing to 1 per 100 after 65 years. Tremors and a variety of debilitating motor symptoms. including falls, rigidity, slowed movement, loss of voluntary movement such as swinging arms while walking, difficulty with speech, fixity of facial expression occur as a result of damage to nerve cells. These tremors get worse when the person is at rest and better when the person moves. Medication and regular exercise helps the person with Parkinson's control symptoms.



A leaflet for Clofranil, the market leader for treating OCD. Clofranil helps treat an endless cycle of compulsions and obsessions.

Nikhil Amin, 35, father and successful tax

professional says "I couldn't just do anything

without rituals.. you know how it is with

numbers, specially if they take over your life-

like they did with mine. Counting was a major

obsession. When I set the alarm clock at

night, I couldn't set it to a bad number. I

missed a major stock market rally. I was

waiting for the index to reach a lucky number.

I had to wash my hands three times- because

three is a good number, and one isn't. It took

me terribly long to read because first I'd have

Sizopin, the antipsychotic that we introduced last year is already the molecule leader. This drug is in clinical trial for use in bipolar mood disorderand if approved, this could easily triple the market size for the molecule.

66 I think therefore I am -Descartes 9

 \square **SPASTICITY** is a medical term used to describe very tight, stiff muscles and severe painful uncontrollable spasms. Spasticity is caused by an overabundance of muscle tone which affects function and is at times very painful. Normal muscle tone is achieved with a balance of contraction and relaxation, with signals from the brain and the spinal cord working in tandem to achieve a fine balance. However, when a part of the brain or spinal cord that keeps this balance is disturbed (after a lack of oxygen, brain trauma, or severe head injury), the muscles are unable to relax. The result is stiff, rigid muscles or spasticity. Scientists believe that a pathway from the brain to the spinal cord is blocked, preventing the release of a chemical called GABA in the spinal cord. Spasticity can be after any spinal cause such as Multiple sclerosis or Parkinson's disease. A regimen of physical therapy and a schedule of medication helps patients regain control over their muscular network.



to count the lines.

My problem is that I work with numbers all the time... I work at a prestigious accounting firm. Since I cannot finish assignments on time with my constant counting tendency, I had been given a warning. Fortunately, my psychiatrist prescribed Clofranil a month ago. My wife says this seems to be helping me... I no longer read the newspaper thrice because I may have missed out on something important. For the first time in several months, I am reaching my office in time..."

□ OBSESSIVE COMPULSIVE DISORDER is an illness that traps people in endless cycles of repetitive thoughts (obsessions) and behaviours (compulsions). People with OCD develop restrictive behaviour patterns that take up too much time and interfere with daily living. In OCD, it is as though the brain gets stuck on a particular thought or urge and just can't let go. OCD is a medical brain disorder that causes problems in information processing. Before the arrival of modern medications and cognitive behavior therapy, OCD was generally thought to be untreatable. Today, luckily, treatment can help most people with OCD. Although OCD is usually completely curable only in some individuals, most people achieve meaningful symptom refief with comprehensive treatment. □

With the introduction of Liofen, Synergy aims to make available antispastic therapy at a fraction of its international cost. Liofen relieves some kinds of spasticity that are believed to be caused by spinal cord lesions. Liofen is also used in complex neurological conditions like involuntary eyelid closure, multiple sclerosis, and certain types of nerve inflammation.

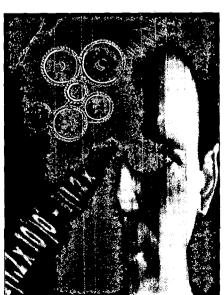
Depression continues to be a major therapy area for Synergy, with a comprehensive basket including the latest antidepressants. A liquid formulation of Prodep was recently launched to offer dosage convinience. This type of antidepressant continues to be the most frequently prescribed because of its safety profile, low suicide potential and efficacy. Clinical trials to prove Prodep's efficacy in new indications such as panic disorders and obesity are ongoing.



□ ANXIETY is estimated to affect between 15 to 20% of medical clinic patients in the west. Anxiety refers to feelings of apprehension or dread, ranging from an excessive concern about the present or the future to feelings of panic. Panic attacks are unpredictable episodes of fear and discomfort associated with palpitations, drymouth, panting, shortness of breath, choking or tight feeling in throat, trembling, dizziness. These have a sudden onset and generally resolve over an hour.

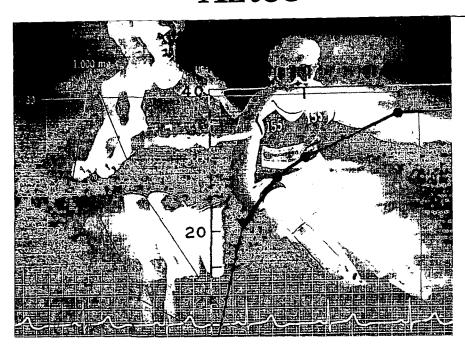
Panic can feature a distorted time perception

□ **DEPRESSION** is more than feeling blue or down in the dumps. This is a medical disorder that affects thoughts, feelings and physical health on a continuous basis for a period over two weeks. A loss of interest in things that were formerly enjoyable is one of the key signals of depression. Disturbances of sleep, energy, appetite, interests, weight loss, impairment in concentration, thoughts of death are some of the other signs. Depression is estimated to affect 15% of the population at some times in their life, and is largely undiagnosed and undertreated. Depression is a biological illness- involving many receptor systems and neurotransmitters. Depression is a whole body illness- one that affects a person's physical health as well as behaviour. □



Increasing depression trends: beyond despairactions whole body illness.

Aztec



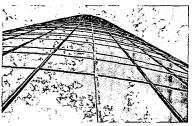
Cardiovascular Disease: Escalating trends, but an active lifestyle helps promote cardiac wellbeing □ ANGINA is crushing or gripping pain in the chest that is caused by changes in the blood vessels that carry blood to the heart. The data for angina seems to indicate a 5:1 male to female ratio through the 4th decade of life, falling to 2:1 about the 7th decade of life. Significant risk factors include genetic predisposition, hypertension, diabetes, smoking, obesity, sedentary life style, and a high fat diet. All of these factors combined can significantly increase one's chances of angina.

With age, blood vessels harden and thicken. When this happens, it becomes harder for blood to get through to feed the muscle of the heart. If too little blood reaches the heart muscle, it causes angina. The pain from angina is felt in the chest, and may spread to both arms, both shoulders, the neck or the chin. The pain is usually described as crushing causing shortness of breath. Anything that requires extra work on the part of the heart can bring on this pain- hard physical labor, emotional tension, excitement. Medication used to treat angina causes blood vessels to expand and reduces the work of the heart. \square

To measure a man measure his heart
-Malcolm Forbes



"Structures that hold up the sky, girders that talk with the wind....." says the energetic 40 plus Ricky Lall, civil - engineer - technacrat - builder describing his business." We build for the global village, we build for all tomorrows......." continues Ricky warming to his favourite theme.



Starting out in construction after a civil engineering diploma, Ricky had, like a colossus, moved from one project success to another. The timing was right, his signature line was quality and he built to last. There was no looking back. With a schedule that was frantic, nail biting pressures and weight in the normal range, Ricky didn't even think about his health. Ignoring warning chest pains one evening, he continued with one of his whirlwind inspection tours at one of his many construction sites last year. After an emergency bypass, Ricky was placed under a regimen of strict medication, diet and lifestyle changes. Ricky's cardiologist prescribed Korandil one of the latest antianginal drugs. Today Ricky feels fighting fit, is to shortly start work on two key projects a resort and an exclusive condominium, and is helping organise a charity to benefit streetchildren. "Good living- like a solid structure is all about proportion- all about the details", as Ricky firmly believes...

With a rating of 5th with cardiologists, Aztec continued to build on the confidence it enjoys with this customer group. (C MARC-Nov 1997-Feb 1998). In oral diabetics, an area we recently entered, we have quickly moved up to 8th rank. Monotrate, marketed by the Aztec division, continues to be Sun Pharma's largest selling product, and is ranked 5th among all cardiovascular drugs sold in the country.

Korandil, the first in a new class of antianginal compounds called Potassium channel openers was introduced last year and currently is the second largest prescribed brand in this class. In house sourcing of the bulk active for Korandil based on processes developed at TDPL helped us gain a much faster entry into this new therapy area. Drugs like Korandil open the fine channels on heart muscle and blood vessels that allow the entry of potassium ions. This decreases the work the heart has to do and its requirement of oxygen. A similar mechanism relaxes blood vessel walls to lower blood pressure. Since Korandil works at a much later stage in the cascade of events that causes angina, it has much lesser side effects than older medication. This combination of action - both in the heart and along blood vessels-places it at an advantage over other antianginals. With several unique benefits like ischemic preconditioning recently discovered, Korandil is expected to become indispensible in antianginal therapy.

□ CORONARY ARTERY DISEASE (CAD) in the leading reason for death in the western world, with more than 950,000 attacks in the US alone. CAD refers to the build-up of cholesterol in the inside layers of arteries that supply the heart with blood. This narrows the flow of blood through the vessels. A blood clot may form, and the wall of the blood vessel may get weakened if a plaque forms. This disease process is called atherosclerosis or hardening of the arteries. Risk factors for atherosclerosis include elevated cholesterol levels, hypertension, male gender, Type 2 diabetes, a family history of premature coronary disease, cigarette smoking, physical inactivity and obesity. Most cases of atherosclerosis produce no symptoms other than intermittent chest pain on exercise or pain/numbness in the limbs, and that too, at advanced stages after the plaque has occluded blood flow to a large extent.