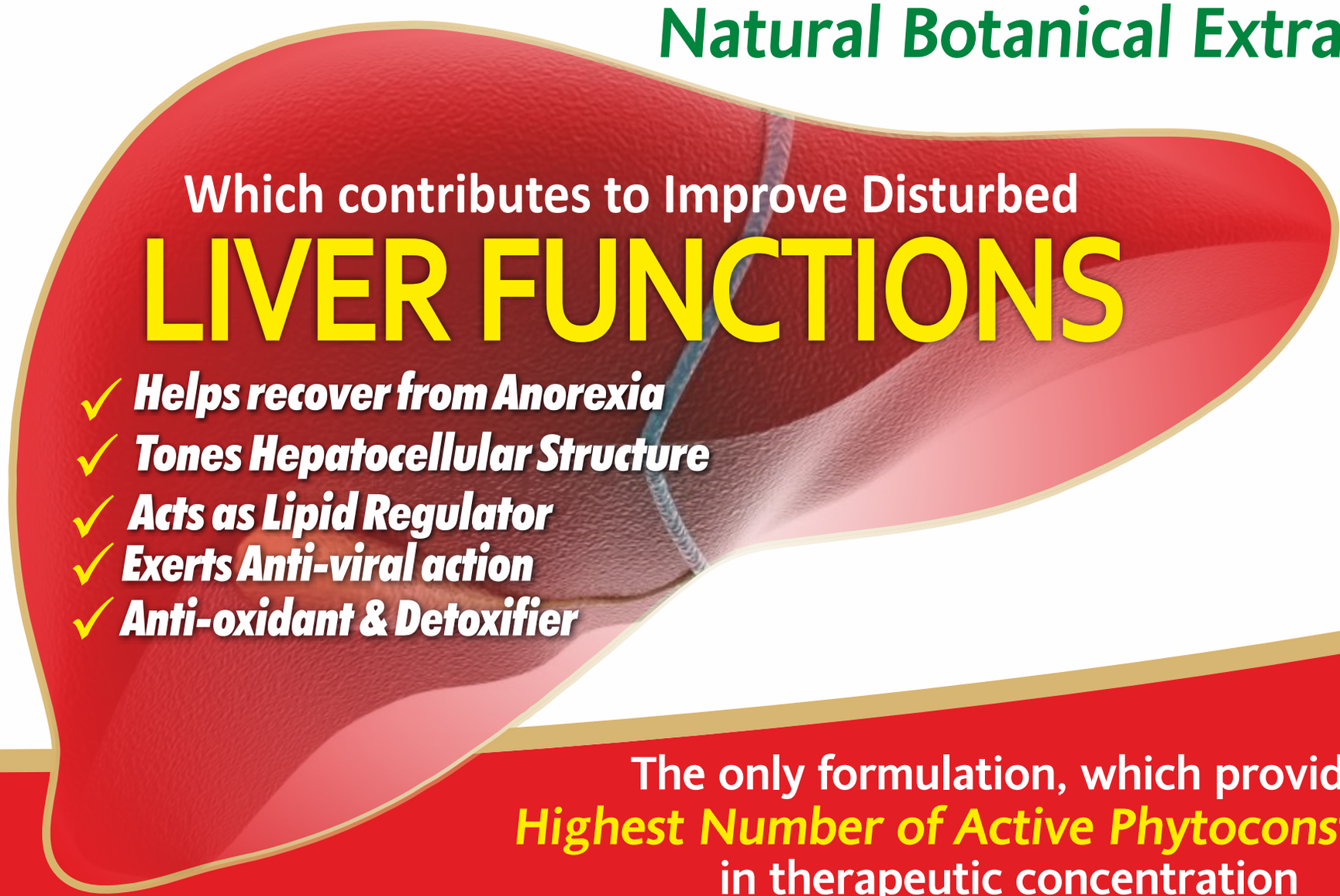
Amlycure® D.S.

A **Desired Strength** Formula
Enriched with **Scientifically validated**
Natural Botanical Extracts



Which contributes to Improve Disturbed

LIVER FUNCTIONS

- ✓ ***Helps recover from Anorexia***
- ✓ ***Tones Hepatocellular Structure***
- ✓ ***Acts as Lipid Regulator***
- ✓ ***Exerts Anti-viral action***
- ✓ ***Anti-oxidant & Detoxifier***

The only formulation, which provides
Highest Number of Active Phytoconstituents
in therapeutic concentration

Amlycure® D.S.

For COMPREHENSIVE Management of Hepato-biliary system in Desired Strength

EXHIBITS ANTI-VIRAL ACTIVITY AGAINST HBV

- Enhances interferon production *-Mulethi.*
- Inhibits reaction between HBsAg & Anti-HBs-*Bhuiamla.*
- Inhibits HBV-DNA polymerase *-Haritaki & Revand Chini.*

PREVENTS ALCOHOL INDUCED LIVER CELL DAMAGE

- Increases levels of alcohol metabolising enzymes ie. ADH, ALDH by *Picroliv from Kutaki*
- Checks fatty infiltration of hepatocytes- *Bhuiamla*

EXERTS ANTI-HYPERLIPIDEMIC EFFECT

- Lowers serum LDL & VLDL cholesterol *-Arjuna*
- Inhibits HMG-CoA reductase enzyme- *Chitrak*
- Retards deposition of lipids in extra hepatic tissues-*Amla*

IMPROVES APPETITE RELIEVES ANOREXIA

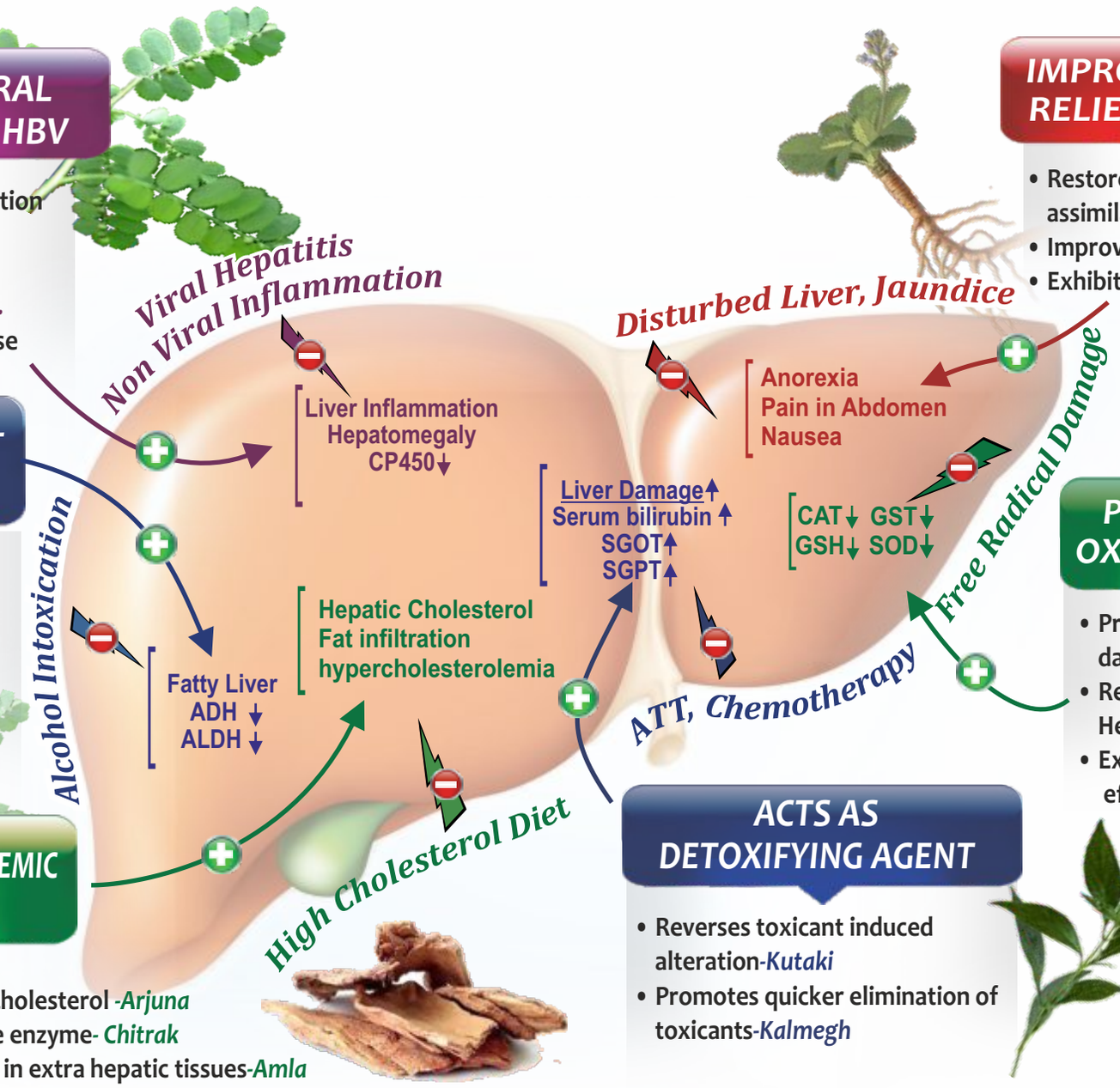
- Restores appetite, digestion, assimilation & metabolism-*Mooli swaras*
- Improves enzyme secretion-*Kutaki*
- Exhibits choleretic effects-*Amla*

PROTECTS FROM OXIDATIVE DAMAGE

- Prevents Hepatocellular damage-*Makoi, Kasni*
- Regenerates, repairs Hepatocytes- *Kutaki*
- Exerts Membrane stabilising effects - *Sharpunkha*

ACTS AS DETOXIFYING AGENT

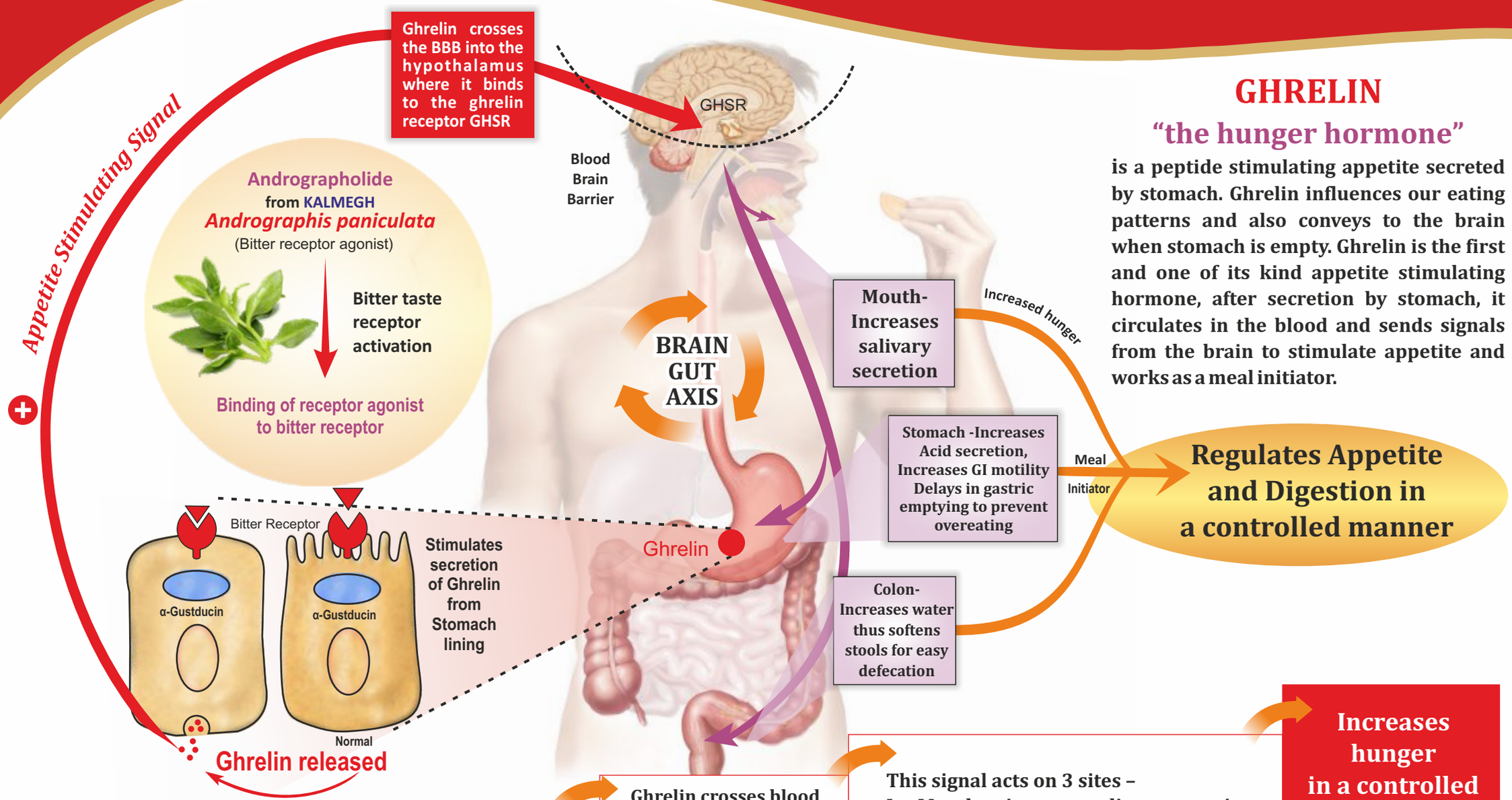
- Reverses toxicant induced alteration-*Kutaki*
- Promotes quicker elimination of toxicants-*Kalmegh*



Desired Strength Liver Corrective & Protective

Amlycure® D.S.

Helps recover from ANOREXIA by inducing Ghrelin secretion and regulating gastric secretions & motility



GHRELIN

"the hunger hormone"

is a peptide stimulating appetite secreted by stomach. Ghrelin influences our eating patterns and also conveys to the brain when stomach is empty. Ghrelin is the first and one of its kind appetite stimulating hormone, after secretion by stomach, it circulates in the blood and sends signals from the brain to stimulate appetite and works as a meal initiator.

* BBB - Blood Brain Barrier
* GHSR - Growth Hormone Secretagogue Receptor

• J.Neurosci. 12, 31(41), 14775-1482, 2011, Hormones 13(4), 458-475, 2014 Avicenna J. Phytomed., 1-11, 2015-05-13, PNAS, 108(5), 2094-2099, 2011 Curr Pharm Des 18(31), 4755-4765, 2012

Bitter constituents in *Andrographis paniculata* act as bitter receptor agonist on the bitter receptor present in stomach lining (also tongue & colon) which thereby, releases ghrelin hormone.

Ghrelin crosses blood brain barrier into the hypothalamus where it binds to the ghrelin receptor (GHSR) which produces appetite stimulating signal.

This signal acts on 3 sites –

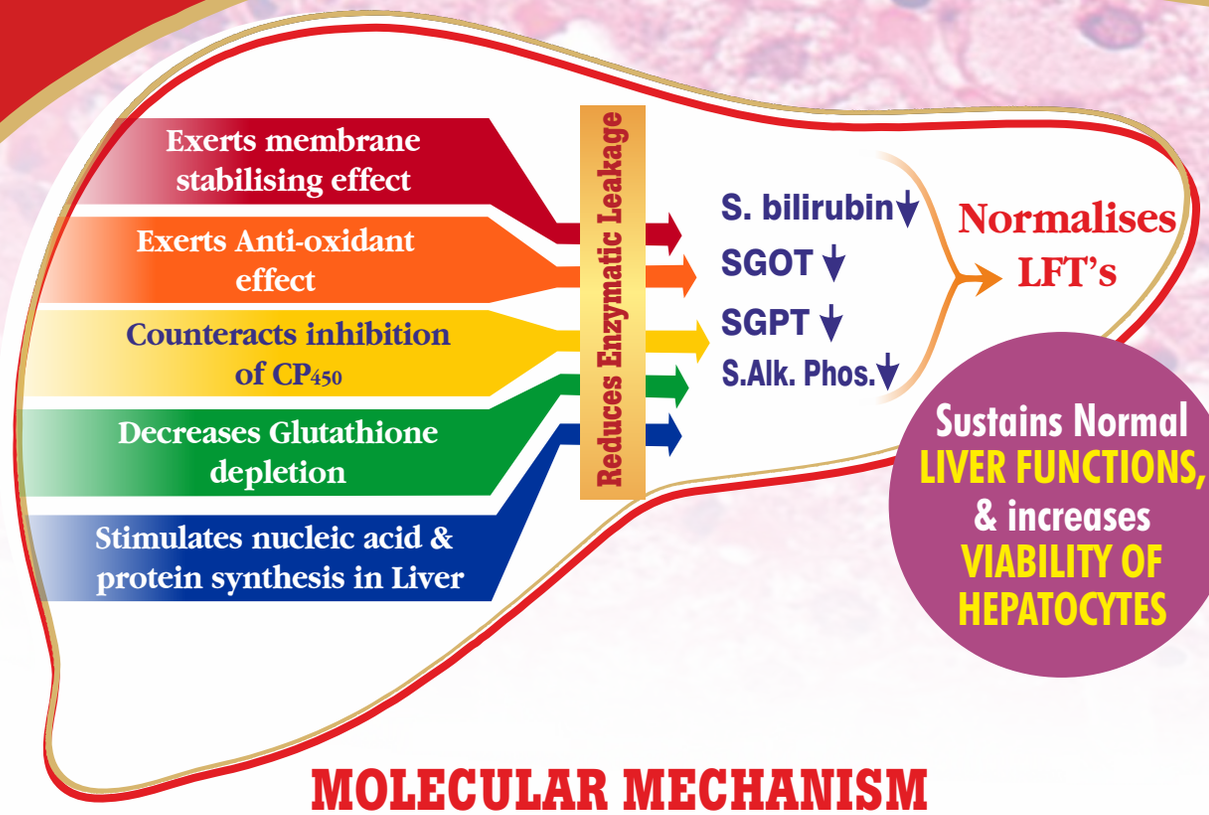
I. **Mouth to increase salivary secretions.**
ii. **Stomach, where it increases acid secretions, increases GI motility and also delays in gastric emptying.**
iii. **Colon, where it increases water and anion concentration.**

Increases hunger in a controlled manner, improving appetite and digestion.

Desired Strength Liver Corrective & Protective

Amlycure® D.S.

Normalises Liver Functions and Prevents Alcohol intoxication acting as potent Hepatoprotective



MOLECULAR MECHANISM
of Hepatoprotective effect of *P. niruri & C. longa*

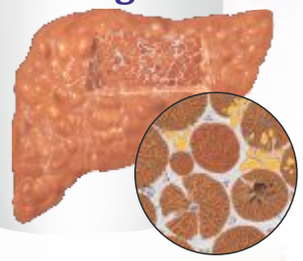
SIGNIFICANTLY REDUCES THE EFFECT OF HEPATOTOXIC AGENTS INDUCED TOXICITY by

1) Removing the causative stimuli of hepatotoxic agent, neutralizing ROSs by their high antioxidant content.

2) Maintaining hepatic stellate cells (HSC) in their quiescent state.

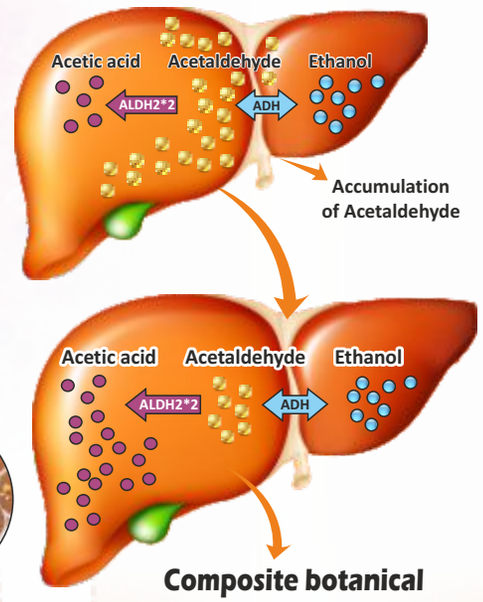
3) Increasing the release of TIMP1 to counter balance MMP2 and complete remodeling of hepatocyte cellular system that preserves or sustains normal liver function, shape and appearance.

Ensures protection from alcohol induced hepatic damage



- Increases level of alcohol metabolising enzymes
- Reverses effect on UGT gene & protein expression caused by Alcohol

In chronic alcoholism levels of ADH & ALDH2 get reduced resulting in Acetaldehyde accumulation & Liver Damage



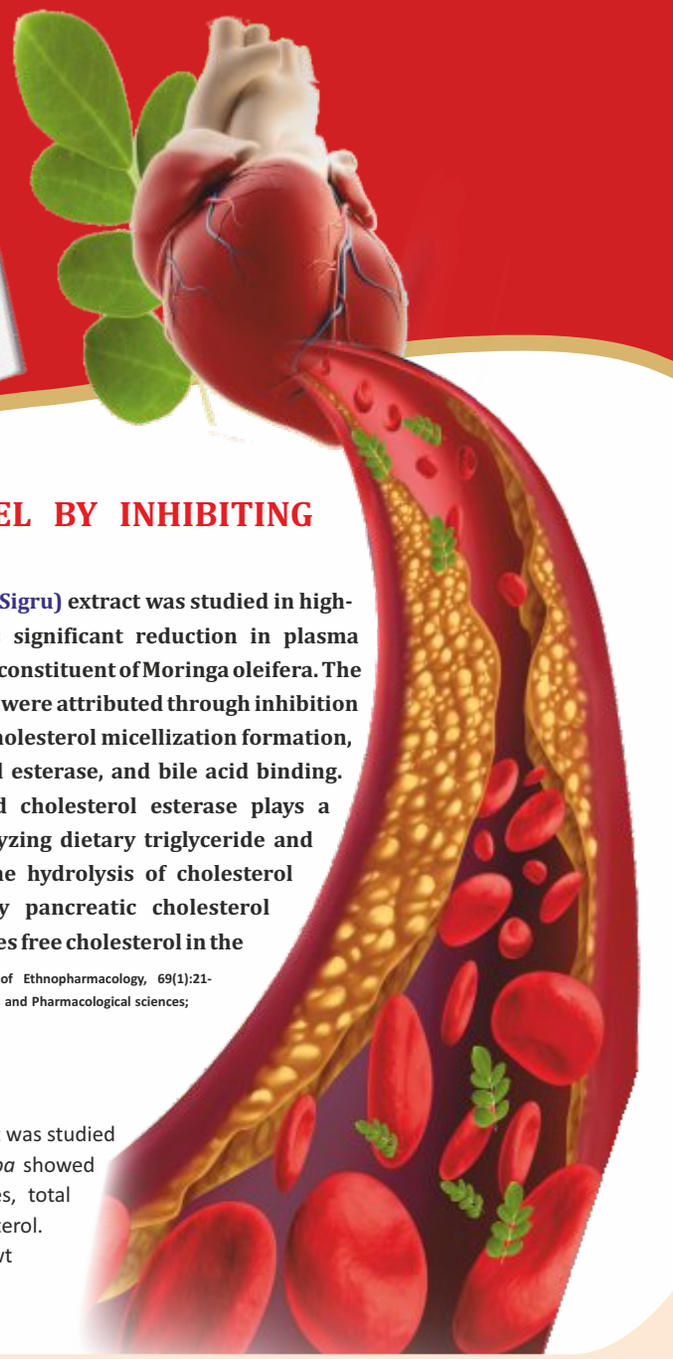
Composite botanical extracts in Amlycure D.S. increases levels of ADH & ALDH which metabolises acetaldehyde and converts it into acetic acid. Thus, reduces accumulation of acetaldehyde which is mainly responsible for hepatic injury in Alcoholism.

Desired Strength Liver Corrective & Protective

Amlycure® D.S.

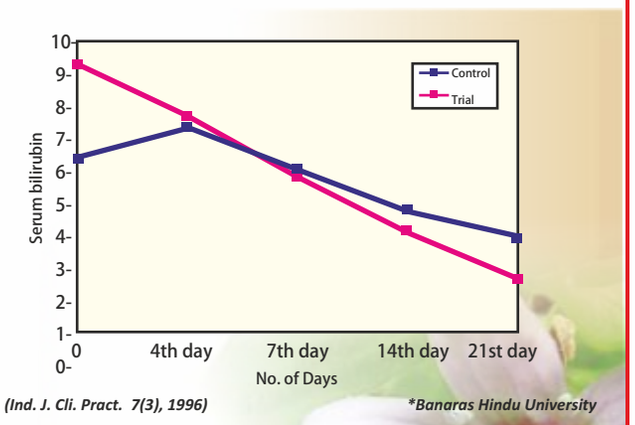
Fastens Recovery in Hepatitis
Restores LFT's in 21 days

ALSO ACTS AS CARDIO PROTECTIVE



Clinical study at B.H.U.* with Amlycure D.S. in Acute Viral Hepatitis shows progressive improvement in biochemical values and symptoms.

The clinical study with Amlcure D.S. revealed that in patient, suffering from viral hepatitis, the mean reduction in the serum bilirubin, SGOT, SGPT and alkaline phosphatase were significantly higher with p<0.001 in the trial group as compared to control in the case of acute viral hepatitis. There was progressive improvement in biochemical values and symptoms from the first follow up onwards in trial group, while in control group, at the time of first follow up the mean values were even higher than the basal.



(Ind. J. Cli. Pract. 7(3), 1996) **Banaras Hindu University*

Also significantly reduces elevated level of cholesterol triglycerides and LDL cholesterol

REDUCES CHOLESTEROL LEVEL BY INHIBITING CHOLESTEROL ESTERASE

Hypocholesterolemic effects of *Moringa oleifera* (Sigru) extract was studied in high-fat diet fed experimental subjects. There was significant reduction in plasma concentrations of LDL by β-sitosterol, active phytoconstituent of Moringa oleifera. The hypolipidaemic effects of *Moringa oleifera* (Sigru) were attributed through inhibition of pancreatic lipase, cholesterol micellization formation, pancreatic cholesterol esterase, and bile acid binding. Pancreatic lipase and cholesterol esterase plays a pivotal role in hydrolyzing dietary triglyceride and cholesterol esters. The hydrolysis of cholesterol ester is catalyzed by pancreatic cholesterol esterase which liberates free cholesterol in the small intestine. Journal of Ethnopharmacology, 69(1):21-25,2000 European Review for Medical and Pharmacological sciences; 2011; 15:803-808

Moringa oleifera *exerts hypolipidaemic effects, attributed through inhibition of pancreatic lipase, cholesterol micellization formation, pancreatic cholesterol esterase, and bile acid binding.*

EXERTS HYPOLIPIDEMIC EFFECTS

Hypolipidemic effects of ***Eclipta alba*** (Bhringraj) extract was studied on atherogenic diet induced hperlipidemia. *Eclipta alba* showed significant reduction in total cholesterol, triglycerides, total protein and elevation in high density lipoprotein cholesterol. *Eclipta alba* extract at dose of 100 & 200 mg/kg b.wt showed excellent lipid lowering potential.
(Indian J Exp Biol, 2007)

ANTI- HBV ACTIVITY OF *Cyperus rotundus (Nagarmotha)*

A cell line study was carried out on Hep G 2.2.15 cells to establish anti- HBV activity of Cyperus rotundus (Nagarmotha). Nine eudesmane-type sesquiterpenoids significantly inhibited the HBV DNA replication with IC_{50} values of 42.7±5.9, 22.5±1.9, 13.2±1.2, 10.1±0.7, 14.1±1.1, 15.3±2.7, 13.8±0.9, 19.7±2.1 and 11.9±0.6 µM, respectively. Two patchoulane-type sesquiterpenoids effectively suppressed the secretion of HBsAg in a dose-dependent manner with IC_{50} values of 46.6±14.3 (SI=31.0) and 77.2±13.0 (SI=1.7) µM, respectively.
(J. of Ethnopharmacol., 171(2), 131-140, 2015)

Reduces viral DNA transcription and replication

The pharmacodynamics experimental studies showed that asiaticoside from ***Centella asiatica*** **(Brahmi)** effectively suppressed the levels of HBsAg/HBeAg, extracellular HBV DNA and intracellular covalent closed circular DNA (cccDNA) in a dose-dependent manner. Furthermore, **experiments demonstrated that asiaticoside markedly reduced viral DNA transcription and replication by inhibiting the activities of core, s1, s2, and X gene promoters.**
(Journal of Ethnopharmacology 150 ,568–575,2013)

Asiaticoside **from Brahmi effectively suppressed the levels of HBsAg/ HBeAg extracellular HBV DNA and intracellular covalent closed circular DNA in a dose dependent manner.**

- **Inhibits Pancreatic Lipase**
- **Reduces Cholesterol Micellization Formation**
- **Inhibits Pancreatic Cholesterol Esterase**
- **Prevents Bile Acid Binding**

Inhibits HMG CoA reductase enzyme

In a study conducted, aqueous extract of *Andrographis paniculata* (Kalmegh) leaves was found to inhibit HMG CoA reductase isolated from liver isolated from high fat diet fed experimental subjects with IC 2.959 µg/ml. This enzyme inhibition was comparable to that observed with standard drug, atorvastatin (IC - 9.071x10 µg/ml ~ 7.5 nM as HMG CoA reductase inhibitor. The hypocholestrolemic activity is attributed to the presence of Bitter water soluble lactone andrographolide, major chemical constituent of *A. paniculata.* (Asian J. Exp. Biol. Sci. 2(1), 63-68, 2011)

Desired Strength Liver Corrective & Protective

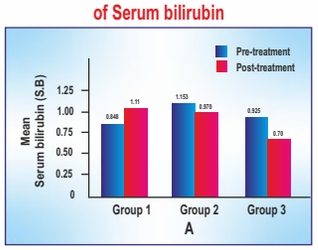
Amlycure® D.S.

Experimental & Clinical study SHOWS SIGNIFICANT HEPATOPROTECTIVE ACTIVITY against ATT & Chemotherapy

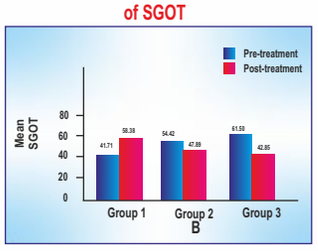
STUDY ON PATIENTS RECEIVING ATT & CHEMOTHERAPY

Conducted at-Department of Surgery VMMC, Safdurjung Hospital, New Delhi

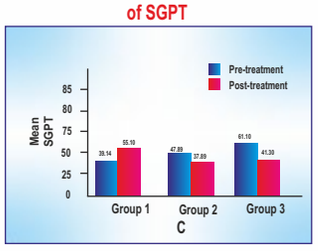
Pre & Post Treatment Statistical Values of Serum bilirubin



Pre & Post Treatment Statistical Values of SGOT



Pre & Post Treatment Statistical Values of SGPT



A RANDOMISED CONTROLLED CLINICAL TRIAL

The hepatotoxic effects were significantly lower in patients receiving Amlycure D.S.

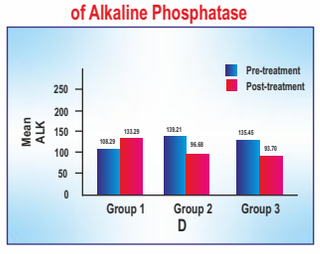
(as compared to their counterparts that did not receive Amlycure D.S.)

Study also showed

Amlycure D.S. ...

- Improves Appetite and Weight Gain
- Normalises LFT's
- Improves Patient's Quality of Life
- No side effects were observed

Pre & Post Treatment Statistical Values of Alkaline Phosphatase



Total Patients (n=61) were divided into three groups
Group-I : n=21 patients (11 TB patients and 10 Ca breast patients). These patients were not given Amlycure DS
Group-II : n=20 patients TB patients and were given Amlycure DS for 3 months.
Group-III : n=20 Ca breast patients and were given Amlycure DS for 3 months.

Study published in -
Delhi State Chapter Journal of Surgery
November-Vol. I/Issue-VI, 2003

Right Choice for Healthy Liver

IMPROVES HISTOPATHOLOGICAL PICTURE

Histopathological studies showed pronounced hepatoprotective activity with less sinusoidal haemorrhage, minimal necrosis and normal architecture as compared to negative control (isoniazid treated group) showing granular degeneration, vacuolation of cytoplasm as a feature of ballooning degeneration, cell injury in centrilobular zone, apoptosis, drop out necrosis, bridge necrosis and inflammation.

PROVIDES PRONOUNCED ANT-OXIDANT ACTIVITY

Oxidative stress is one of the mechanisms with the central role involved in pathogenesis of anti-tubercular drug, isoniazid, induced hepatotoxicity. Studies revealed that Amlycure D.S. provided potent anti-oxidant activity comparable to that of silymarin. TBARS assay studies showed that Amlycure D.S. and silymarin reduced the isoniazid induced elevated TBARS, highly significantly with p<0.001, with the TBARS values being quite near to that of normal values.

Effect of Amlycure D.S. on lipid peroxidation (measured as level of thiobarbituric acid reactive substance – TBARS)

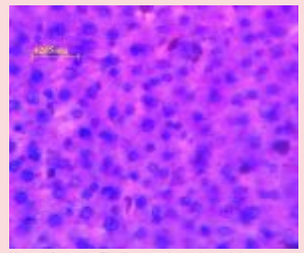
Parameters (Nanomole)	Normal control group	Isoniazid treated control group	Silymarin treated group	Amlycure D.S. treated group
TBARS	0.049 ± 0.014***	0.153 ± 0.022	0.087 ± 0.027***	0.087 ± 0.02***

Values are expressed as mean ± SEM, (n=6), two way ANOVA followed by bonferroni post-tests used where *represent significance at p<0.05, ** represent much higher significance at p<0.01, ***represent very high significance at p<0.001 as compared to isoniazid treated control group.

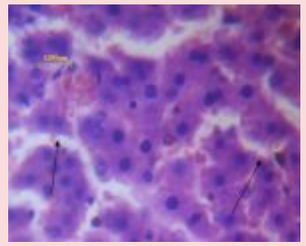
IMPROVES BIOCHEMICAL PARAMETERS

Amlycure D.S. treated group showed significant decrease in isoniazid induced elevated liver function parameters viz. ALP, AST, ALT, LDH, Total bilirubin, Direct bilirubin, thereby establishing significant hepatoprotective activity. The hepatoprotective activity of Amlycure D.S. was found to be much higher as compared to standard hepatoprotective silymarin.

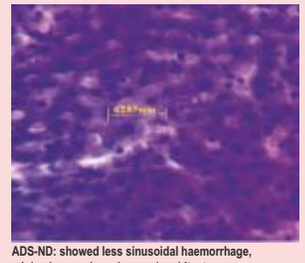
Histological study:



Normal Control: - The liver sections showed the normal lobular architecture of the liver with hepatocyte arranged in single cords.



Toxicant (Isoniazid): - The liver showed granular degeneration, vacuolation of cytoplasm as a feature of ballooning degeneration. Cell injury in centrilobular zone, ballooning degeneration, apoptosis, dropout necrosis and bridge necrosis, inflammation



ADS-ND: showed less sinusoidal haemorrhage, minimal necrosis and normal architecture.

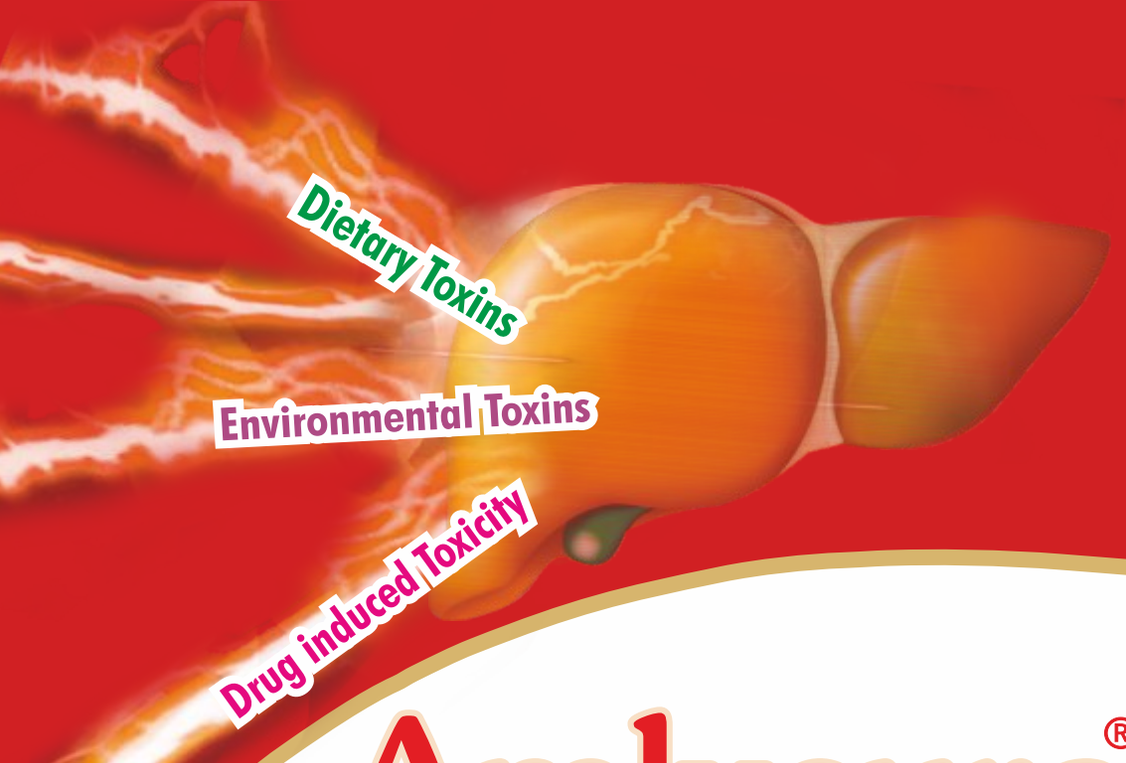
Effect of Amlycure D.S.(ADS-ND) on different Biochemical parameters in Isoniazid Induced Hepatotoxicity

Groups	ALP (IU/L) 62-230	AST (IU/L) 74-143	ALT (IU/L) 18-45	LDH (IU/L) 110-185	Tot. Bilirubin (mg/dl) 0.05-0.15	Dir. Bilirubin (mg/dl) 0.03-0.05
Normal Control (10ml/kg)	94.62 ± 10.58	45.54 ±6.01	33.45 ±2.48	107.82 ± 3.09	0.34 ± 0.028	0.084 ± 0.018
Isoniazid Control (250mg/kg)	248.68 ± 27.16#	108.26 ± 11.74#	72.38 ±5.62	199.50 ± 22.44	1.77 ± 0.121#	3.40 ± 0.45#
Silymarin (63mg/kg)	90.28 ± 13.63***	52.17 ± 8.05***	38.44 ± 3.99***	134.02 ± 7.17	0.40 ± 0.06***	0.20 ± 0.045***
ADS-ND (285mg/kg)	84.65 ± 5.08***	38.38 ± 4.05***	30.46 ± 3.59***	104.50 ± 3.05***	0.31 ± 0.05***	0.15 ± 0.02***

Values are expressed as mean ± SEM, (n=6), two way ANOVA followed by bonferroni post-tests used where * represent significance at p<0.05, ** represent much higher significance at p<0.01, *** represent very high significance at p<0.001 as compared to isoniazid treated control group.

(Asian Journal of Biochemical and Pharmaceutical Research Issue 3 (Vol. 5) 2015)

Desired Strength Liver Corrective & Protective



LIVER as an important immunological organ is always exposed to toxins resulting in COMPROMISED IMMUNITY

Amlycure® D.S.

Desired Strength Liver Corrective & Protective

Tablets/Syrup/Capsules

Improves KUPFFER CELL activity, favorably improving Innate Immunity

Now Available FILM COATED Tablets

The synergism of Multi-ingredients & Optimal concentrate of Active Phytoconstituents exert pronounced Liver Corrective & Protective Action

A non-drowsy choice for Infants & Children

EXCLUSIVE BENEFITS

- Fortified with highest no. of synergistically acting herb extracts in therapeutic concentration.
- Effectively restores LFT's.
- Clears excessive bilirubin from serum, relieves Jaundice.
- Enhances secretion of enzymes in GIT, improves appetite, digestion & metabolism.

INDICATIONS

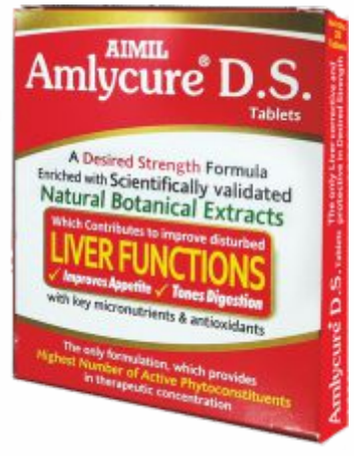
- Lack of Appetite (Anorexia)
- Hyperbilirubinaemia
- Viral hepatitis (Acute & chronic)
- Disturbed Liver Functions
- Hepatotoxicity induced by
  1. Hepatotoxic drugs e.g. ATT, Chemotherapy
  2. Alcohol

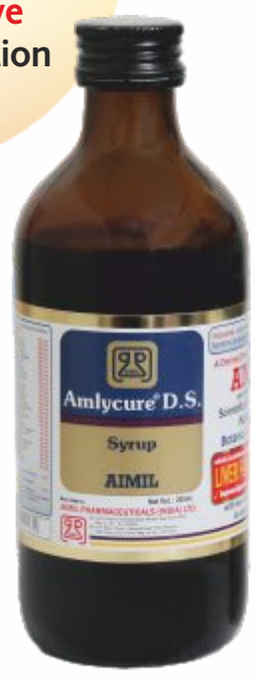
DOSAGE

TABLETS : 1-2 tabs. TDS
CAPSULES : 1-2 caps. TDS

SYRUP
Children : ½ to 1 tsf BD.
Adults : 2-3 tsf TDS.

CAPSULES : 1-2 caps. TDS





Desired Strength Liver Corrective & Protective